E-Michigan Customer Research

Theme Manager Readers' Guide

The Michigan Department of Management and Budget engaged Public Policy Associates, Incorporated to examine how the State could organize the information and services it offers over the Internet in a manner that is more responsive to customer needs and preferences, and that capitalizes on efficiencies provided by technology. The study included the design of a prototype that demonstrates the organization and functionality suggested by the research findings.

This document summarizes the key findings of the study and consists of the following materials:

Final Report

This report synthesizes all of the streams of research that were conducted in an effort to understand the needs and preferences of potential users of the e-Michigan Web portal. It includes screen shots of the prototype along with responses of focus group members who had a brief opportunity to review the prototype in a computer laboratory setting.

Suggested Initiatives for Theme Development

The e-Michigan prototype was intended to simulate the design, functionality, and basic organizing features of the e-Michigan home page portal of the future. Originally, the intent was to provide a more thorough demonstration of the prototype's design by developing selected themes more fully. However, given the constraints of time and available resources, it became clear that a less deep, but more expansive demonstration of the prototype's potential was necessary. While the information and insights gained through several of the research tasks was not integrated into the prototype design, it remains a valuable source of additional information to guide the e-Michigan theme teams as they work toward making the e-Michigan vision a reality.

Four themes were targeted for additional research:

1. Business
2. Licensed Professionals
3. Education
4. Tourism and Recreation

Each theme report includes an executive overview, a summary of related research findings, and a preliminary list of relevant Web addresses. The research is preliminary rather than exhaustive.

E-Michigan Customer Research

Final Report

Prepared for the Michigan Department of Management and Budget

Prepared by:

Public Policy Associates, Incorporated

119 Pere Marquette Drive

Lansing MI 48912-1231

(517) 485-4477

Fax: 485-4488

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We would like to thank Electronic Data Systems (EDS), our technology subcontractor on this project, for providing us with able and highly responsive and creative work in developing the e-Michigan prototype and for their willingness to host a second round of focus groups to solicit reactions to the prototype design and functionality. We are particularly grateful to Mike Konzman, Doug Cook, Jeff Bowles and Steve Phelps for the many hours they contributed to this project.

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As always, the staff at PPA contributed significant time and effort to ensure the high level of quality both the State's e-Michigan client team and we demanded. In this effort, Lisa Marckini, Jessica Campbell, Sheila Sikora, Stephanie Baker, and Carol Goodearl each played an important role.

The people mentioned here deserve a major share of the credit for whatever value this report may ultimately have for the State of Michigan and its customers—the people of Michigan.

Jeffrey D. Padden, President
Public Policy Associates, Inc.

Nancy C. Hewat, Project Manager
Public Policy Associates, Inc.

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Executive Summary

The Michigan Department of Management and Budget engaged Public Policy Associates, Inc. to examine how the State could organize the information and services it offers to the general public over the Internet in a manner that is more responsive to customer needs and preferences including the design of a second generation prototype that demonstrates the organization and functionality suggested by the research findings.

The e-Michigan Customer Research study incorporates information from a variety of sources, including:

- Analysis of e-mail inquiries submitted to the State of Michigan Network Operating Center.
- Analysis of selected State agency contact logs.
- Two rounds of focus groups.
- Interviews with key stakeholders in selected business and professional associations.
- Telephone survey research.

Key Findings

- Customers visit the State's Web site looking for information on a broad array of topics and services. The portal should be designed with these needs in mind.

- Young Michigan students who visit the State's Web page have a particularly difficult time finding what they need to complete homework assignments.

- Customers need a clearly organized Web portal that is easy to navigate.

- Customers would value a user-friendly search engine for the e-Michigan site that allows users to refine their searches.

- A "book mark" or "favorite place" feature would be appreciated by many customers of the e-Michigan portal.

- Security is an important issue for users of the e-Michigan portal, suggesting the need to incorporate features that safeguard transactions.

- Web-based transactions will be popular with many users but will not replace traditional service delivery methods.

- Customers conducting transactions via the Internet would like to receive e-mail notifications that their inquiries have been received and are being processed.

- Camping reservations and professional licensing services are popular features that should be priorities for development.

- The ability to customize the e-Michigan Web portal will be attractive to a substantial portion of customers.

- Most customers feel comfortable conducting personal business with the government via the Internet.

- Customers want a clearly written and prominently posted security and privacy policy.

- Customers would like to receive personal reminders regarding time-sensitive transactions.

- Customers want the option to select from a variety of informational newsletters provided by the State.

- Customers are willing to provide personal contact information in order to receive e-mail notifications and other information.

- Customers have information needs that cut across State agencies, as well as branches and levels of government.

- Web site users come to the State government Web page seeking information that may or may not be a function of State government agencies.

- Michigan citizens and customers look to the State as their primary access to government services regardless of what level of government is responsible for the desired service.

- Focus group participants liked the idea of grouping related information and services together.

- Some customers may be accustomed to and, hence, prefer to continue selecting from a list of specific state government offices to locate the information they need.

- Most customers are strongly opposed to the idea of banner advertising.

- Other types of more subtle advertising are somewhat more acceptable to customers.

- Some customers may need more individualized assistance to find the information they need on the e-Michigan portal.

- Customers want a timely response to their requests for assistance but they do not expect 24-hour-per-day service.

- The State should aim to exceed the public's expectations for customer service.

In general, the design features and functionality of the prototype are very consistent with customer needs and interests.

Next Steps

The e-Michigan customer research has shown that a relatively large fraction of the public is eager and able to engage with the State government using the World Wide Web. A robust response by the State will provide far better service than government has traditionally delivered at a fraction of the cost.

Even as the State moves forward with this initiative, it must continue to recognize, as a matter of public policy, that not all residents are wired. Some Michiganians lack the technology, capability, or interest to connect with the State electronically, and, although they represent a declining segment of the population, their ability to receive information and services from government must be maintained.

For those increasing numbers of customers who connect via the Internet, the research and development done for this project suggests some important next steps:

- ***Fulfill orders zealously.*** Perhaps the most critical aspect of the e-Michigan portal is the absolute imperative that it deliver all that it promises. Fulfillment of customer orders for information or transactions will determine the ultimate success or failure of the system. The fulfillment process must be monitored *systematically* to determine whether the automated and human-powered systems are performing properly.

- ***Pursue New Revenue Streams.*** The State must move aggressively to strike deals with commercial enterprises for a presence on the e-Michigan Web portal. Such relationships must be negotiated wisely by the State to assure that a fair price is realized.

- ***Craft a credible promise of confidentiality.*** The State must develop a clear, simple promise that personal information provided for the purpose of accessing the full functionality of the e-Michigan portal will never be used for another purpose. Doing so will preempt any worries which might arise about uses of the information by those inside or outside State government. Customers must have confidence that, if they give a credit card number to reserve a campsite, it will not be used to collect delinquent taxes or child support. They must also be assured that their e-mail addresses or other profile information will not be released to marketers or political organizations. In order to protect information provided with the promise of confidentiality, the e-Michigan office should seek legal counsel on whether confidentiality can be maintained under current law.

- ***Market the portal aggressively and consistently.*** The State communicates with the public millions of times per year. All such communications must carry the top

level Web address for the portal. As the State attracts more traffic to the site, it will drive up the value of the new revenue streams mentioned previously. It will, of course, also be providing service to more customers and, ultimately, will drive down the volume and cost of traditional services.

- ***Track customer satisfaction.*** Related to, but distinct from, monitoring fulfillment is the need to constantly assess the degree to which customers are satisfied with the portal. For the e-Michigan web portal, these might include value, speed, timeliness, friendliness, ease of use, accuracy, and overall experience.

- ***Commit to continuous improvement.*** Michigan must invest in a significant commitment to continuous improvement of its Web offerings, both in terms of their breadth and their quality. When the portal becomes operational, the work of the e-Michigan Office will have just begun. This investment must take the form of an ongoing engagement with a technical partner who has the capacity, competence, and mandate to make improvements as necessary. Such comment will increase the pace at which change can be made and, therefore, the State's ability to maintain the highest levels of customer satisfaction.

- ***Monitor and push system usage.*** The level of usage of the system must be monitored continuously and compared with the usage of traditional services. Accurate baseline estimates of the use of each delivery system must be established and targets set for migrating users from the traditional channels to the Web.

- ***Continue to push the envelope.*** The prototype for the e-Michigan portal encompasses a combination of capabilities not currently found on any state Web site in the nation. Other areas not explored in this project which merit attention by the e-Michigan Office that go beyond service transactions to governance itself. Examples include voting and electronic town hall meetings.

As Michigan moves forward aggressively to create the most advanced state Web presence in the nation, it is setting the stage for a profound shift in the relationship between the public and the government. If the Web lets the public see the government as competent and helpful, rather than bumbling and heavy-handed, it will lead to a different feeling about all public officials and employees.

The e-Michigan portal can reshape public opinion about State government. This shift can result in the public giving the government the benefit of the doubt, rather than assuming the worst at every turn. Eventually, this new relationship will affect the expectations that the public has of candidates for public office. If government is seen as working well, then "running against the government" will go out of fashion as a campaign strategy.

The e-Michigan initiative is far more than a technical shift from one delivery system to another, from a less efficient to a more efficient strategy. It is an opportunity to forge a relationship between the government and the public that may dramatically change the

public's perception of the capacity, responsiveness, and, ultimately, the value of State government.

Section One: Introduction

Background

The e-Michigan customer research summarized in this study began in the Spring of 2000 amidst a flurry of activity around e-commerce within Michigan. In the early fall of 1999, several events focused attention on the use of Web-based technology to deliver government services:

Michigan's Department of Management and Budget developed an initial prototype that captured the imagination and interest of State government leaders who saw it as a way to increase both government efficiency and customer satisfaction;

A select group of public-sector technology partners attended a briefing at which the State's plan to improve and expand the State of Michigan home page portal was announced and described;

The Michigan Economic Development Corporation sponsored an e-commerce conference that highlighted the State's increased emphasis on the use of the Internet by individuals conducting business with selected units of State government including the Secretary of State, the Department of Consumer & Industry Services, the Department of Treasury, and others; and

The State's Information Technology team recognized that in order to design a home page portal to provide the services and information customers want and need, it was essential to do a systematic analysis of the needs and opinions of the customers of e-Michigan.

The excitement and enthusiasm around the application of advanced information technologies to the development of the e-Michigan home page portal led to the customer research summarized in this report.

Problem Statement

The State of Michigan serves three distinct groups with unique information and service needs which can be addressed through creative use of Web-based technologies. These include:

State government employees,
Vendors who contract with the State to provide goods and services, and
Members of the general public who contact the State to obtain information and conduct personal business.

This study focused specifically on the needs of the general public.

The Michigan Department of Management and Budget engaged Public Policy Associates, Inc. to examine how the State could organize the information and services it offers over the Internet in a manner that is more responsive to customer needs and preferences including the design of a second generation prototype that would demonstrate the organization and functionality suggested by the research findings.

Research Questions

The e-Michigan customer research study sought answers to the following questions:

Who are the current and potential customers of the e-Michigan Web portal?
What are their current and future demographics?
What is their current and expected level of access to the Web?
What are customer perceptions of current delivery systems?
What are their beliefs and expectations for the quality and timeliness of services?
How, when, and where do customers want services delivered?
What do key customer groups think of as the scope of e-Michigan possibilities?
How do customers respond to various potential e-Michigan services?
What worries do customers have about e-commerce specific to the governmental context?
How do customer needs vary by the intensity of their relationship with the State?

Information Sources

The e-Michigan Customer Research study incorporates information from a variety of sources, including:

Analysis of e-mail inquiries submitted to the State of Michigan Network Operating Center.
Analysis of selected State agency contact logs.
Two rounds of focus groups.
Interviews with key stakeholders in selected business and professional associations.
Telephone survey research.

Together these research activities provide a knowledge base to inform the design of an e-Michigan prototype and, subsequently, the further development of the e-Michigan home page portal.

This document provides an overview and synthesis of the customer research.

Detailed analytical reports were prepared for several of the research tasks and were submitted under separate cover.

Organization of the Report

This report consists of four sections and an Appendix.

Section One, this section, introduces the study.

Section Two summarizes the key customer research findings.

Section Three describes the key features of the prototype using screen shots as a guide.

Section Four discusses next steps in the development of the e-Michigan home page portal.

Appendix: This contains a list of prototype design and development assumptions.

Section Two: e-Michigan Customer Research

Overview of Research Activities

The prototype created as one of the primary deliverables for this project was informed by findings from several research tasks including:

E-mail Log Analysis

E-mail inquiries submitted to the State of Michigan Network Operating Center (NOC) through the State's main portal Web site at www.state.mi.us between September 11, 1999 and January 18, 2000 were analyzed. (Further information regarding the analysis can be found in a separate report entitled *e-Michigan: Analysis of e-mails,* February 2000.)

State Agency Contact Log Analysis

Customer contact logs submitted by seven units of Michigan State government, including the Departments of Consumer and Industry Services (CIS), Civil Service (CS), Environmental Quality (DEQ), Career Development (MDCD), and Treasury, plus the Lottery Bureau and the Michigan Economic Development Corporation (MEDC) were analyzed. (Further information regarding this analysis can be found in a separate report entitled *e-Michigan: Analysis of State Agency Contact Logs*, May 2000.)

Stakeholder Interviews

Stakeholder interviews were conducted with leaders of several organizations within the State of Michigan including the Small Business Association of Michigan, the Michigan Chamber of Commerce, the Michigan Association of Secondary School Principals, the Michigan Automobile Association, the National Federation of Independent Business Owners, the Michigan Retailers Association, and the Michigan Grocers Association. (Comments and suggestions from these interviews are embedded in the Content Theme suggestions included in the Appendix of this report.)

Focus Groups (Round One)

Focus group discussions provided insight into how the e-Michigan Web portal should be designed to best satisfy the information needs of various types of users that come to the portal seeking information and services from State government. Five frequent or high volume user groups were included: travelers/tourists, small business owners, educators, licensed professionals, and human services professionals. (Further information regarding the findings of

this aspect of the study can be found in a separate report entitled *e-Michigan Focus Group Report: Suggestions for the e-Michigan Home Page Portal*, June 2000.)

e-Michigan Customer Survey

A randomized phone survey of 1200 Michigan residents was conducted, including 600 Internet users and 600 non-users. The survey research examined the degree of current use of the Internet, assessed the degree of interest in using the Web to access government information and services, and identified the types of information and services of greatest interest to individuals most likely to use the Web to access State government information in the near future. (Selected findings from this aspect of the customer research study are embedded in this report. A more comprehensive analysis and report is available as *e-Michigan Survey Report: Understanding Capacities, Interests, and Desires of e-Michigan Customers,* July 2000.)

Focus Groups (Round Two)

A second round of focus groups was held to gather feedback and reactions to the e-Michigan prototype, focusing primarily on its design and functionality. The participants had an opportunity to explore the prototype briefly in a computer laboratory setting, and then were invited to share thoughts regarding the features they liked and disliked, and what suggestions they might offer to improve the prototype. Four Internet user-groups were recruited, including travelers/tourists, licensed professionals (real estate), students, and members of the general public. (Further information regarding the findings of this aspect of the study can be found in a separate report entitled *e-Michigan Focus Group Report: Focus Group Report: Reactions to the e-Michigan Home Page Portal Prototype,* July 2000.)

The research activities described above provided a wealth of data that was used as a basis to design the e-Michigan prototype and gather reactions and feedback from users. The findings of the research are summarized below.

Design and Content Recommendations from e-Michigan Customer Research

The following pages summarize the wants, needs and preferences of Michigan's citizens for Web-based information and services. The summary synthesizes information collected through the various research methods described above and includes actual quotes from first round focus group participants.

Design and Functionality

Navigation and General Use
Focus group participants were asked what features they find attractive in the Web sites they have visited. Their preferences included:

Minimal, yet visually appealing, graphics.
"Thumbnails" graphics that can be expanded when customers desire more information.
Minimal scrolling required to view pages (although the need to scroll is sometimes affected by a user's computer system rather than the host site).
A navigation bar that is always readily accessible in the banner at the top of the Web site.

Search Capability
The e-mail log analysis indicated that the type of information requested through e-mails is extremely varied. 45 percent requested specific information spanning a broad range of categories from where to find Michigan's judicial case history to information about the State bird and motto. Another 40 percent of the e-mails sought guidance on how to accomplish a specific task, ranging from starting a new business to renewing an elderly parent's driver's license.

These findings indicate that customers visit the State's Web site hoping to find information on a broad array of topics and services. The portal should be designed with these needs in mind.

The e-mail log analysis also indicated that many of the State government resources which are currently available on the Web are difficult for some users to find. The majority of those who sought assistance from State of Michigan's Network Operations Center (NOC) were referred to an existing State Web site (although whether or not those referrals were appropriate could not be determined from the available data). The log analysis also revealed that young Michigan students who visit the State's Web page have a particularly difficult time finding what they need to complete homework assignments.

This analysis suggests that customers need a clearly organized Web portal that is easy to navigate.

Focus group members reported that they typically use a search engine to find information on the Web. However some users complained about search engines which return so many links that it is overwhelming rather than helpful.

> *"There are teachers that are frustrated as can be just like the students. You do a search for American history and here's 365,000 links. Like where do you go from there? I've had teachers almost burst out into tears because they were just beside themselves. They had no idea where to go with it."*
>
> *Educator respondent*

The second most common method for locating information was the use of electronic "bookmarks" or "favorite places" which were characterized as valuable time savers.

The survey research confirmed the popularity of search engines, finding that an overwhelming majority of users (90.2 percent) have used search engines, and almost 60 percent of users identified search engines as their most frequently used means of searching for information on the Internet.

The findings indicate that customers would value a user-friendly search engine for the e-Michigan site that allows users to refine their searches.

The research also suggests that a "book mark" or "favorite place" feature would be appreciated by many customers of the e-Michigan portal.

Online Transactions

Even though most focus group participants were aware that automobile tab renewals and tax filing could be done on line, many expressed a preference for more traditional ways of renewing and filing (i.e., standing in line; mail). Focus group participants suggested that the fear their credit card information might be stolen could keep them from using the Internet to do transactions. The telephone survey research confirmed that this was a concern for 61 percent of the users who were surveyed. However, these fears are apparently not so intense as to stop the 55 percent of users who have made multiple Web purchases.

The findings indicate that security is an important issue for users of the e-Michigan portal, suggesting the need to incorporate features that safeguard transactions.

Some focus group members felt that their failure to use the Web-based service was simply a matter of not being aware that the services were available; however, others said they were more comfortable with a personal touch, and felt more reassured that the transaction was actually completed when they did it in person.

The findings suggest that Web-based transactions will be popular with many users but will not replace traditional service delivery methods.

Focus group participants also were hesitant to conduct transactions over the Web because of a perception that it would be difficult to track the transaction if something went wrong. They indicated that they would be more comfortable if they received an immediate response that the transaction had been received and was being processed.

Customers conducting transactions via the Internet should receive email notifications that their inquiries have been received and are being processed.

The survey research revealed a relatively strong interest in renewing license tabs, filing taxes, reserving campgrounds, and renewing professional licenses, particularly among current Internet users. However, the survey findings suggest that interest in the Internet option is more widespread among campers and licensed professionals than among tax filers and those registering vehicles.

Camping reservations and professional licensing services are popular features that should be priorities for development.

Customization

Perceptions of usefulness

It is possible to customize a Web site—such as MyYahoo! or Excite.com—so that it provides information of particular interest to a user. The survey research revealed that 40 percent of Michigan Internet users report using the customize features of "MyYahoo" or Excite.com, the majority of those who have used this feature find it useful.

Focus group members shared this assessment, as approximately one-third of participants reported having "personalized" a Web page. Others in the groups were interested in learning how to customize Web pages. For those who had previous experience personalizing Web pages, many found it useful and a valuable time saver.

> *"The functionality to me is really important. I want to be able say, 'This is what I want to look at.' I don't want to have to go to twelve different sites and find this information. It's nice if I could just have it come up when I log on."* *Small Business respondent*

The ability to customize the e-Michigan Web portal will be attractive to a substantial portion of customers.

Privacy and Security

Overall, there was some degree of contention in the focus groups regarding divulging personal information to the State. Some participants were un-phased by the thought of providing personal information to a government Web site, while others were wary of giving out information over the Internet, feeling that too much of their information is already posted on the Internet. Still others felt strongly that the State's Web site should not require any personal information at all.

Even though several expressed a sense of realism regarding the personal information that the State already possesses, there was still a concern about the purposes for which information would be requested and the extent to which it might be used for other purposes**.**

> *"A privacy policy that guarantees that this information is not going to be sold to advertisers and will be kept in strict confidence. The Better Business Bureau has an online privacy program which has certain rules that in order to be a part of the program, you have to abide by these certain rules. I think programs like that . . . will help people feel more secure about doing business."*
>
> *Travel/Recreation respondent*

To address the latter concern, participants recommended that the State have a policy/privacy statement that assures that their personal information will not be sold or shared with other agencies, departments or the private sector.

The survey research findings confirmed the viewpoints expressed by members of the focus groups but placed their concerns in a larger public context. Fully 80 percent of the users surveyed felt no difference between using a company or government Web site and 13 percent felt more comfortable using a government site. The most frequent reasons cited for this position included a belief that the government is more trustworthy, has a greater respect for privacy and confidentiality, and would emphasize security more than a private company. Only a small number of individuals in this category were of the opinion that, since the government already had access to confidential information, it was less of an issue.

Just 6 percent of the users surveyed reported being more comfortable with a company Web site, the most frequent reasons cited included a distrust of government generally, a belief that companies are more likely to keep information to themselves, and a concern that the government already knows too much about individual citizens.

Most customers feel comfortable conducting personal business with the government via the Internet.

Customers want a clearly written and prominently posted security and privacy policy.

E-mail Notifications and Subscriptions

Overall, focus group participants were receptive to the idea of the State sending e-mail on a variety of subjects including auto license tab renewals, professional licenses, conference announcements, and even deals for cheap airline tickets. Participants were quite enthusiastic about receiving personal reminders about renewing their driver's license via the Web, even though many admitted that they were aware of, but had not used, the Web-based renewal system.

Customers would like to receive personal reminders regarding time-sensitive transactions.

Participants were also interested in selecting from a broad array of informational newsletters on specific topics of interest including summaries of important State government committee meetings, conferences targeted for members of professional associations, and other topics of more general interest to hunters, travelers, and parents.

Customers are interested in having the option to select from a variety of informational newsletters provided by the State.

Just as focus group members valued the opportunity to opt for these notification and subscription services, they also expressed a desire to have an easy method to unsubscribe.

The survey research confirmed that customers who visited the e-Michigan portal would be likely to use this type of notification and subscription service, as nearly 85 percent of the users surveyed have visited a site which asked for personal information. Of those, over three-quarters (76.5 percent) have provided personal information to such sites.

Most customers are willing to provide personal contact information in order to receive email notifications and other information.

Content and Organization

The content of many e-mail inquiries submitted to the NOC can be categorized by the State agency with jurisdiction over the subject of the inquiry. E-mails to NOC were categorized as falling within the jurisdiction of the following agencies or offices:

Department of Consumer and Industry Services (CIS)
Secretary of State (SOS)
Community Health (DCH)
Treasury
Family Independence Agency (FIA)

Several other categories were created to accommodate inquiries that spanned agency boundaries or involved areas and issues not administered by any specific Michigan Department. These categories are as follows:

E-mails related to the jurisdiction of the Departments of Natural Resources (DNR) and Environmental Quality (DEQ) or involving tourism;
Inquiries seeking very general information about Michigan—frequently referred to the Michigan Information Center by NOC employees;
Inquiries about the State Legislature, its members and/or pending business, or the Governor's office were placed in the category of Michigan Political Process;
Matters administered by other levels of government such as counties, cities, or the federal government were placed into the category of Local/Federal.

The e-mail logs provide evidence that many incoming requests for information may be addressed by a single department of State government, yet many other information needs may cut across agencies, branches, and levels of government. Making information more easily accessible to the customers of e-Michigan could have a dramatic effect on many aspects of life within the State.

> *"I'm interested to adopt a child. That ought to be enough to cut across State and perhaps even federal links. You shouldn't have to get bogged down with which department handles adoptions. I mean that is really bureaucratic already."*
> *–Human Services professional*

Customers have information needs that cut across State agencies, as well as branches and levels of government.

Content Themes

The e-mail log analysis indicates that many Web site users come to the State government Web page seeking information that may or may not be a function of State government agencies. The e-mail logs revealed that many customers cannot effectively distinguish between the roles and responsibilities of different levels of government. Further, many Web site users may not clearly distinguish between public responsibilities and functions and, private organizations with a public service mission. The e-mails indicate that many Michigan citizens and customers look to the State as their primary access to government services regardless of what level of government is responsible for the desired service.

Focus group participants found the idea of grouping related information and services appealing:

Members of the "Travelers and Tourist" group wanted direct access to all information needed to plan a trip, including local weather, county road conditions, public and private lodging options, community events, and information about boating, hunting, and fishing licenses.

When asked what sorts of information would be useful for instructional purposes, members of the "Educators" group stressed Michigan Curriculum Framework-based, text resources and access to "virtual tours" for students unable to visit sites of educational interest, information about interesting family field trips, and career planning information.

The realtors, property assessors, and builders who participated in the "Licensed Professionals" group were interested in online licensing, continuing education credit information, updates on regulations governing land use, direct access to county and local government offices, road construction updates, driving directions, and weather reports.

The survey research confirmed that Internet users valued having a variety of current interest information from which to choose. While the level of interest varied considerably, direct access to weather information and travel/mapping information was favored by approximately 50 percent of users surveyed.

The survey research also confirmed public interest in a wide array of general purpose information. Half of the Internet users were interested in information on historic Michigan places or travel, local schools, and higher education and training opportunities. A second tier, which drew the interest of about 45 percent included information on job postings and upcoming voting opportunities. Business information and tax filing was of interest to about a quarter of users.

When customers come to the State's Web portal, they seek more than information from a particular administrative unit of State government.

Some customers may be accustomed to, and hence, prefer to continue selecting from a list of specific state government offices to locate the information they need.

When information needs cut across administrative units of State government, branches, and levels of government, and include both public and private sources of information, content themes offer an alternative approach that may better meet the needs of a wide range of customer groups.

Advertising

The focus groups were opposed, *in theory,* to having advertising, particularly banner advertising, placed on the State's Web site. This position was widely held, even when it was posed as a means to generate funds to build and maintain the site. A frequent reason cited for not engaging in advertising was the political ramifications of having advertising on the State Web site. Participants felt that the State should not be advocating a certain position or favoring one company over others.

> *"I think you would tend to question the motivations and maybe start looking at the possibility of improprieties. Where is the loyalty of the State, is it to us, the citizens, or is it to their advertisers?"*
>
> – *Travel/Recreation respondent*

While a few were open to advertisements that were directly related to their interest in visiting a particular Web page (e.g., outdoor clothing for individuals registering for a hunting license), many felt it was more appropriate to provide a link to a commercial site than to have a banner advertisement on the State's Web site.

Most customers are opposed to the idea of banner advertising.

Other types of more subtle advertising are somewhat more acceptable to customers.

Customer Service

Even if the e-Michigan home page portal is designed to provide customers with easy access, convenient groupings of related content materials, and advanced search capabilities, there may still be instances where customers need assistance to find the information they need. Focus group

participants provided insight as to what customer service supports would be most attractive to them.

In case of difficulty in accessing information on a State of Michigan Web page, participants stated that, in addition to a search engine, they would like the ability to e-mail a State employee with their question. While this method is appealing, it could prove problematic for those that do not have e-mail addresses.

> *"I'd like to know if I need to know somebody to call to follow up my search or a fax number. . . give me a human being that I can reach or some way to connect to somebody so, if I'm not sophisticated in my search techniques, I can go to somebody to get it done."* - *Human services*

Some customers may need more individualized assistance to find the information they need on the e-Michigan portal.

Participants stated that e-mail questions should be responded to in a timely manner. Most participants do not expect 24-hour, seven day-a-week service, but they do expect a response within 24-48 hours.

> *"When you have questions, they (Department of Treasury) have that one site where if you have questions, you type out your question, and you send, it and they answer back by e-mail and they answer your question. . . they answered me back in 48 hours. . . they actually told me to allow five days."*
> - *Small Business respondent*

It was also noted that getting an automatic response that the e-mail had been received and a message stating when an answer could be expected, would make waiting for a response less taxing.

Customers want a timely response to their requests for assistance but they do not expect 24-hour per day service.

Customers should be notified regarding the expected response time.

The State should aim to exceed the public's expectations.

This section summarized key findings of the e-Michigan Customer Research project. The next section presents and describes the e-Michigan prototype and includes the reactions of focus group members who had an opportunity to explore the prototype prior to discussing its features and functionality.

Section Three: The e-Michigan Prototype

The findings from the first round of focus groups together with the results of the analyses of State agency contact logs, customer e-mail inquiries, stakeholder interviews, and telephone survey research, were used to inform the development of a prototype which demonstrates the design features and capabilities, content clusters, and range of services that customers prefer. This section describes the design and functionality of the prototype using screen shots from the prototype as a visual guide for the reader. Additional information related to the structure and content of selected content clusters can be found in the Appendix of this document.

It is important to note that it is impossible to capture a dynamic, hyperlinked application like the portal prototype on paper. To truly understand the functionality of the portal it must be viewed in a dynamic Web environment. Readers are strongly encouraged to conduct their own personal exploration of the e-Michigan prototype.

Note: The screen shots that follow are best viewed using Adobe Acrobat version 4 or higher.

Overview

This discussion is organized as follows:

Brief description of design or functionality being illustrated.

e-Michigan prototype screen shot.

Bulleted list that explains key aspects of the design or function.

Summary of the reactions and feedback provided by the second round of focus groups.

Recommended changes or refinements of the prototype.

Design and Functionality of the e-Michigan Prototype

Navigation and General Use

The e-Michigan home page portal pictured below has basic design features intended to simplify navigation, including a top and side navigation bar. The top navigation bar includes direct access to a "My Michigan" customizable page, Frequently Asked Questions, a State Web page search engine, a place to create a list of "My Michigan" favorite place links, and a "Contact Us" help desk available through e-mail. The left navigation bar groups information under several general categories, provides a gateway for Registered Users (State employees and State business contractors), and includes some special features of recurring interest to a broad range of users (Michigan Surplus, Lottery, and Treasure Hunt).



The list of services and transactions provided in the main body of the page emphasizes the broad array of transactions and services available through the e-Michigan portal. Virtually all functionality of the portal is accessible from this page.

Pictures and illustrations are kept to a minimum to enhance the functional speed of the site.

The navigation bars provide users with direct access to a complete menu of options, regardless of where they may travel within the State Web site.

Customers have multiple avenues for finding the information they need.

Focus Group Feedback

Several participants characterized the coloring and graphics as "eye-catching" and uncluttered, and feel they facilitated quick access to the topics in which they were interested. However, others complained that there was too much information in the body of the first page.

Participants reported that they were attracted to the "Look Here First" button at the top of the left hand navigation bar, and many like the fact that it contained content organized by interest area rather than the State agency directory structure which is currently used to organize the State of Michigan Web pages. Others complained about how the topics were organized, for example, preferring that taxes be included in the Government section rather than included within content clusters.

A few participants reported that they expected the "Look Here First" button to provide information about the Web site itself rather than a listing of topic areas.

Some focus group members characterized the e-Bay and Michigan Lottery icons as trivial and thought they should be replaced with more important information such as emergency numbers, driving, and travel information.

Participants noted that the pages loaded very quickly and the wait time was minimal when opening up subsequent pages of the portal.

Recommendations

Provide an "About this Site" button on the left menu bar that describes the main features of the portal.

Create a concise "Greetings from the Governor" message for the front page text, however maintain some of the direct click transactions (e.g., plan a vacation, register your car or boat, get driving directions, contact your elected officials).

Maintain the "Look Here First" button title for content clusters.

Move "Online Treasure Hunt" and "Michigan Lottery" to "Of Current Interest."

Customization

There are two ways to access the features and content of the e-Michigan portal. The primary screen was illustrated on the previous page. This page displays the customize "My Michigan" page. It is accessible by clicking on the "Personalize this Site" button which appears both in the left hand navigation bar shown on the previous page. It can also be reached by clicking on the words "My Michigan" that appear in the top navigation bar. The default "My Michigan" page is shown below.



The "My Michigan" page provides access to all the information and features available through the left hand navigation bar, but offers users the option of deciding which information to display.

The information that appears in the center column includes important messages and special announcements of new features available through e-Michigan. It is created, and periodically updated, by the State.

Any user can access the "My Michigan" default page illustrated above without submitting a user name or password; however, the user will not be able to enjoy the full functionality of the site. (Note: The prototype needs to be edited to reflect this design feature.)

To customize a "My Michigan" page, the user must create a user name and password. This information is entered and stored in the "My Michigan Profile" Web page mentioned below.

Personal contact information is NOT required to have a "My Michigan" customized page; however, users will not be able to enjoy the full functionality of the site (e.g., e-mail notifications).

To benefit from many of the features of "My Michigan," only a user-created ID, password, and e-mail address are required.

Focus Group Feedback

Some participants report being confused by the phrase "Personalize this Site" which appears on the button used on the front page of the e-Michigan portal, while others do not find the terminology confusing.

Most participants have no previous experience with customizing a Web site.

Others think it would be useful because it would allow them to go straight to the things they used most often.

Several participants suggested providing a better explanation of the customization feature, citing the explanation used by "Yahoo" as a user-friendly example.

One participant likes the clear organization of the "My Michigan" page so much that he suggested it be used as the start-up page for the e-Michigan portal.

Recommendations

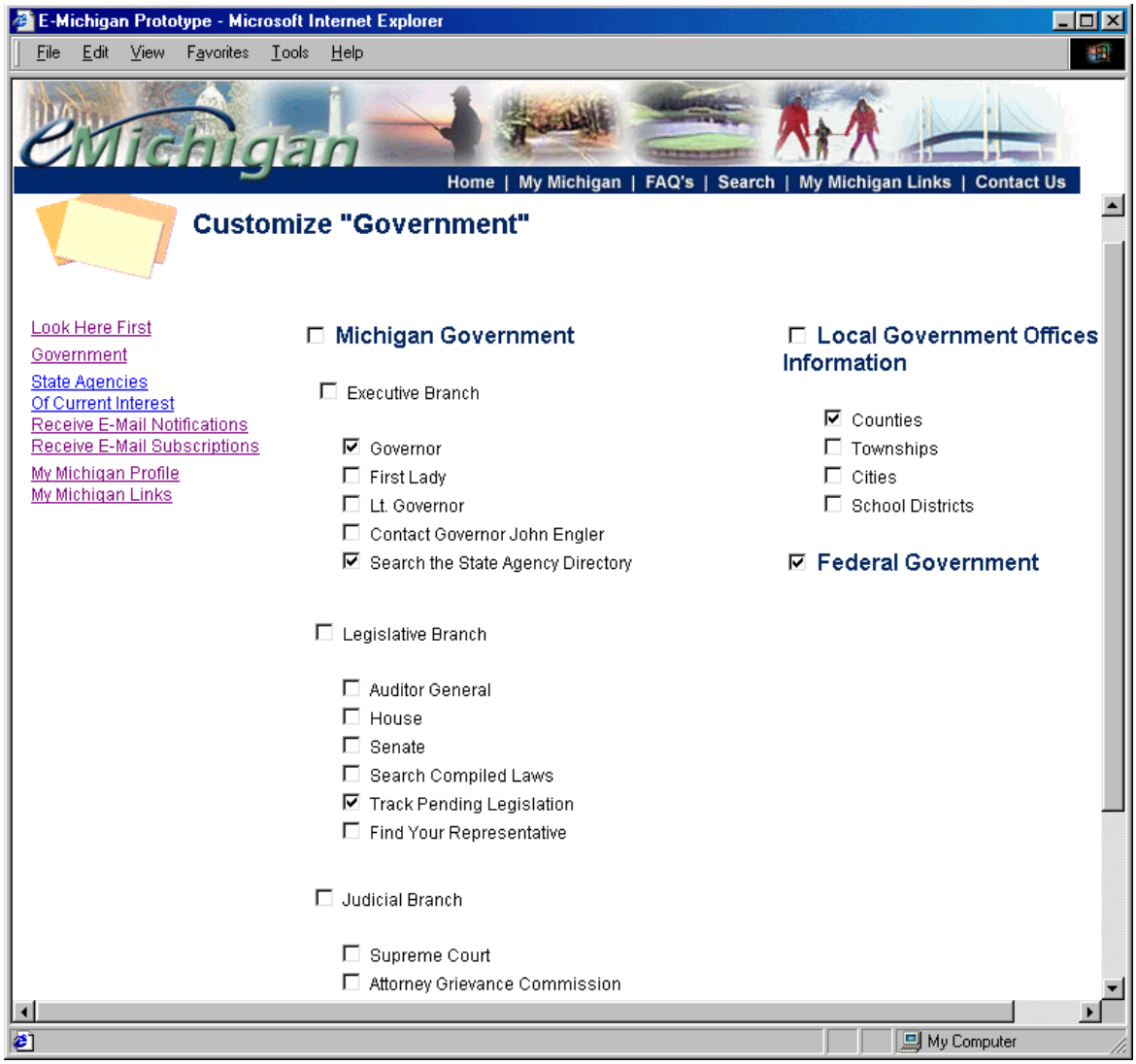
Change "Personalize this Site" to "Create your *My Michigan* page."

Include a description of the "My Michigan" customize features, emphasizing its benefits, in the "About this Site" text.

Offer the "My Michigan" page as an alternative to, rather than a replacement for, the e-Michigan front page.

Editing "My Michigan"

The information which appears under each of the category headings on the "My Michigan" page is just a fraction of the information available for display on a customized "My Michigan" screen. Some of the choices available within the "My Government" category appear below.



The "Edit" function of the "My Michigan" customize page allows the user to opt for whatever mix of information and services desired.

All of the categories listed on the "My Michigan" page have similar check lists available for editing.

Users can register for e-mail subscriptions using the edit function on this page. They are also invited to sign up for related subscriptions as they visit specific areas of the Web portal and conduct transactions for which related subscriptions are available.

The "My Michigan" page also allows users to save favorite State of Michigan Web pages using the "My Michigan Links" feature listed on the top navigation bar.

Focus Group Feedback

Several of those who had previous experience with customizing a Web page find the option to be quite useful.

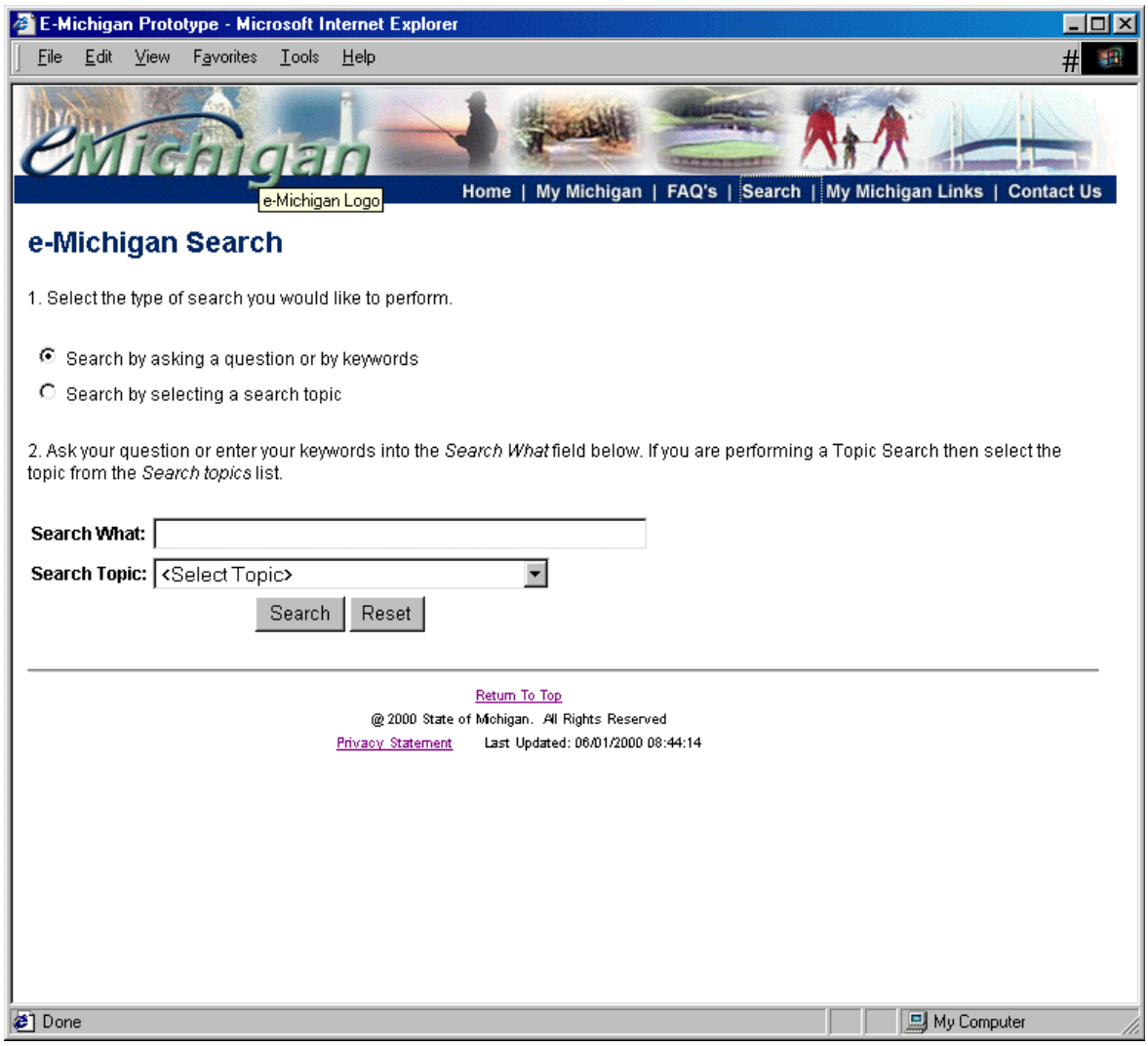
In general, participants like having the ability to exercise complete control over the process of receiving e-mail notifications and subscriptions from the State.

Recommendations

No changes.

Search Feature

The search feature displayed below allows customers to perform a search of e-Michigan Web pages using a variety of different approaches. The search feature is available by clicking the term "Search" which appears in the top navigation bar. Users may choose whether to submit their request in the form of a question, to use keywords, or to select a search topic from a drop-down list.



To ensure that customers can find the information they need, the database that supports this search engine must cut across agencies and branches of State government.

The e-Michigan search engine must accommodate common language terms that a customer may use to conduct their search. So, for example, a key word search for "licensed foot doctors" should link with podiatrists in the searchable database.

For those who are unable to find the information they need using the search engine, a "Contact Us" e-mail option is provided.

Focus Group Feedback

Several focus group members feel the Search engine that is listed in the top navigation bar should have a far more prominent place on the front page.

Most participants prefer to use e-mail if they encounter any difficulties using the e-Michigan Web site. A toll-free "Help Desk" phone number is a popular alternative.

Most focus group members expect help to be available during business hours; however, if it is not immediately available, participants said they would like to receive an e-mail notification that their request for help was received and being processed.

An automated response is acceptable as long as it contains helpful information.

The expected turnaround time for a response is between 24 and 48 hours.

Participants value a quick response, but stated that they were more apt to accept longer turnaround times if they are informed of what to expect.

Recommendations

Move the "Search" feature to the left navigation bar. Display it in a manner that makes its functionality clear to users.

Include a "Help Desk" phone number within the search engine field and list the specific business hours during which calls will be answered.

State Government Information

The Web page displayed below illustrates a traditional method for locating State government information. By clicking on the "State Agencies" button within the left hand navigation bar, a customer can access a detailed listing of administrative units of State government (including all three branches of government), access a State Directory, and get directions to State government offices in the Lansing area.



Some customers of State government may feel more comfortable using a list of State agencies and offices to find the name of a specific office with which they have conducted business in the past.

By creating a State Agency Directory that is searchable not only by the employee name, but also by agency function and content or topic areas, individuals who seek information through this avenue will find it easier to find what they need without seeking assistance through customer service.

Providing maps of State government buildings and offices and explicit driving directions to the Lansing area will enhance accessibility of State government.

Focus Group Feedback

Participants value the opportunity to also have access to information through traditional channels such as State Agency listings.

Recommendations

Create a clearly organized listing of State government "Agencies and Offices."

Change "Contact State Government" to "State Government Directory."

Create a "State Government Directory" that cuts across branches of State government and is searchable by employee name, topic, or administrative unit.

Content Themes

The Travel and Recreation theme displayed below provides direct access to an array of related content of special interest to individuals interested in visiting the State of Michigan. The subheadings denote the various types of information that might be used in planning a vacation within the State, including information about various types of outdoor activities, news of local events, driving information, and weather reports.



The subheadings within the Travel and Recreation theme include information that cuts across State agencies (road conditions, boating registrations, and fishing licenses).

The subheadings also include interesting and useful information available from sources outside of State government (weather, local events, etc.).

Rather than having to search through various State government offices (and beyond) to find necessary information, a customer can access all the information they need from this single screen.

Focus Group Feedback

Focus group members think the content of the Travel and Recreation theme is very informative and clear. They particularly liked the array of useful information suggested by the headings within the cluster, noting that it would make their travel planning quicker and easier.

Group members would like more pictures and icons, such as a tent icon to go along with "Camping." They also suggested that the icons should have explicit titles underneath them so that people are clear what the icons are referencing.

A few participants noted the information seems geared to Michigan residents, and that it might be useful to provide information for out-of-state visitors, such as rules for hunting and fishing.

Additional information about State forests, wildlife, festivals, and biking was requested.

When comparing the organization of the Travel and Recreation theme with other themes listed in the "Look Here First" category, focus group members indicated a preference for a common method of organizing and presenting subheadings within and across all of the cluster groups. They found the organization of the "Business" theme and "Working in Michigan" theme particularly attractive.

Recommendations

Provide additional, small icons that correspond with each of the activities listed in the sub-categories; however, be careful not to extend the length of the screen to avoid scrolling as much as possible. Include a title under each icon so that people are clear what the icons are referencing.

Include hunting and fishing rules information within the appropriate activity listing.

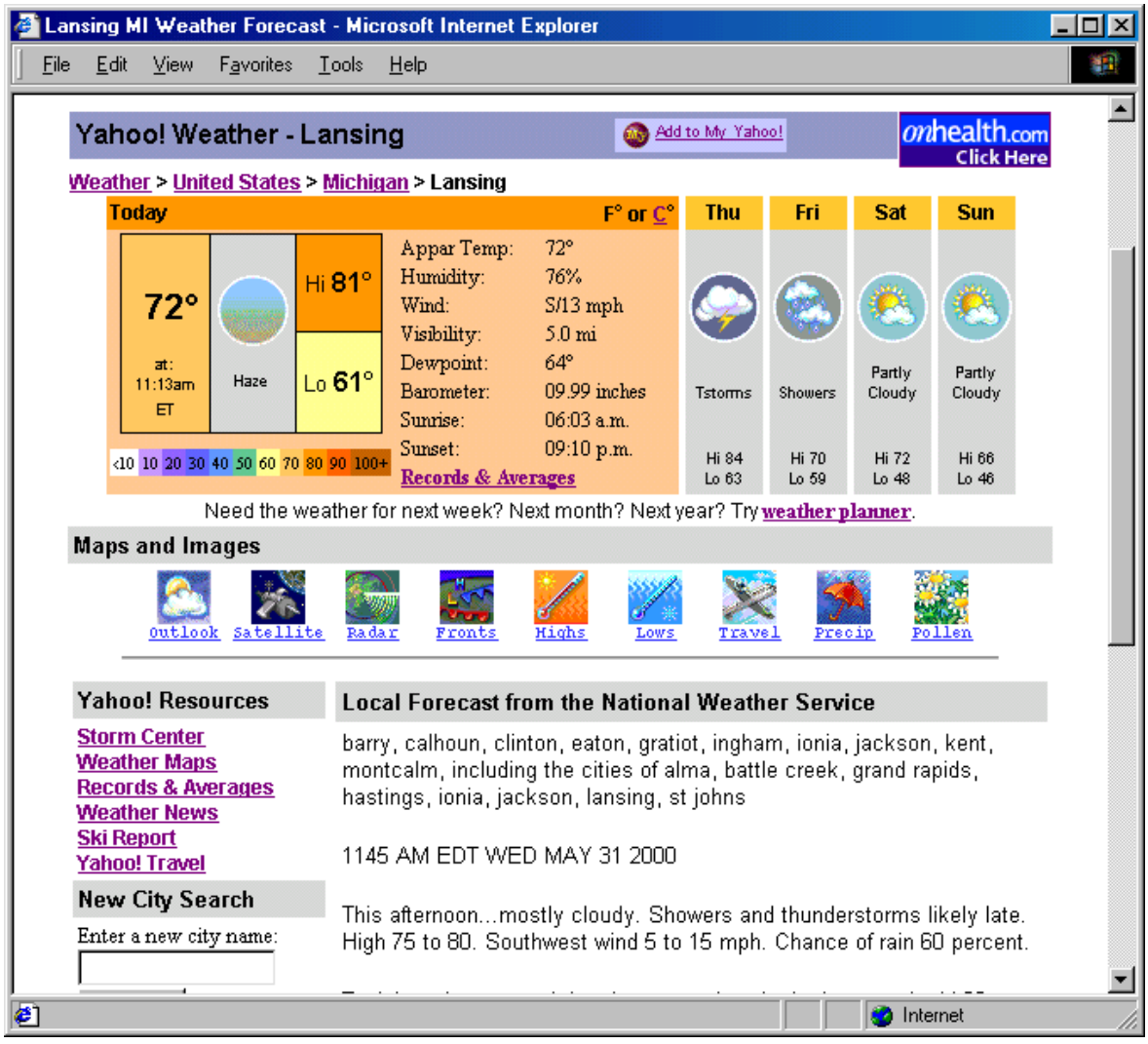
Provide information about State forests, wildlife/naturalist activities, festivals and biking.

Create a consistent navigation look and feel within each content theme.

Accessing information from Outside of State Government

The dialogue box displayed below notifies users that the information they have selected is comes from a source outside of e-Michigan state government. The example below shows weather information provided by Yahoo! Other examples would include driving directions from MapQuest, federal government sources (e.g., federal tax filing), and other private service companies (e.g., private campgrounds listed as choices in the Travel and Recreation cluster).





When accessing this site from the e-Michigan portal, the screen appears within a single pop-up browser window. If an additional site external to State government was selected, the

new site would replace what is displayed in the pop-up browser window.

The use of a pop-up browser window emphasizes the fact that the customer is viewing information outside the domain of State government, ensures that customers do not become confused by having multiple browser windows open simultaneously, and allows customers to return easily to the State's Web page.

Focus Group Feedback

Participants noticed and appreciate the dialogue box informing them that they were leaving the State's Web site.

They also noticed the additional browser window that popped up after the dialogue box, remarking that it made it easy for them to return to their place on the e-Michigan site.

Some participants found the alert sound that accompanied the message box annoying.

Recommendations

Mute the alert sound that accompanies the message box.

Advertising/Other Revenue Streams

The "Camping" topic page selected from the "Interests" sub-category of the Travel and Recreation cluster is shown below. In addition to providing users with the ability to search for a campground that suits their needs and interests, the site includes an offer for a free catalogue from the Gander Mountain company. This screen also illustrates a State business partnership with an online auction service (i.e., the e-Bay Michigan Surplus Store that appears at the bottom of the left navigation bar).



By embedding advertising within selected areas of the e-Michigan Web portal, the State may generate revenues that will help offset the cost of building and maintaining the system.

A competitive procurement process linked to specific topics within e-Michigan would provide the State with control over the type of information posted and would provide potential bidders with a fair and open process for advertising their goods and services.

Even though most of those who participated in the initial round of focus groups were opposed, *in theory,* to the use of advertising on a State Web site, a small number of them were open to the idea of context-related advertising. The Gander Mountain logo featured on this Web page was used to test how customers would respond to a context-related advertisement, *in practice.*

Another possible revenue stream would include providing the content for e-mail subscription newsletters linked to a broad spectrum of user interests (skiing, fishing, nutrition, etc.).

Focus Group Feedback

Some participants are discontent with the presence of the Gander Mountain advertisement, feeling that the State is pushing one company on consumers to the exclusion of other companies, while others are comfortable with the advertisement because it was context-related.

Even if a competitive procurement process is in place, several focus group members wonder how fairness can be assured since larger companies can afford advertising more easily than smaller companies.

Several respondents suggested that the State should insert a disclaimer that they are not endorsing companies and are not responsible for a customer's experience with them.

Other respondents fear that advertisements might dilute the credibility of a State-sponsored site.

A few respondents remarked that, if a portion of the proceeds from the advertisement support good causes (e.g., improvements at State parks), they might feel less negative about the advertisement.

Some participants view the e-Bay Michigan Surplus Store as fundamentally different from the Gander Mountain advertisement, feeling that it is more acceptable for the State to contract for a service such as that offered by e-Bay.

Recommendations

Use a competitive procurement process to solicit bids for companies who wish to advertise on the e-Michigan site. Closely link the specifications for successful bids to the context of the Web page in which the advertisement will appear.

Do not use banner advertisements.

Include a disclaimer statement that the State does not endorse, or assume responsibility for, company products or services.

- Develop a strategic partnership with an online auction service for the purpose of selling State government surplus goods.

- Change the icon on the left navigation bar to make it clear that, by clicking on the icon, the user will enter the store.

Cutting Across Levels of Government and Public/Private Options

The search results shown below illustrates several dimensions of information available to customers. In this instance, customers have received the results of a search for campgrounds within the State of Michigan.



Customers using this search feature received information about State parks, federal parks and private campgrounds. They also have the opportunity to reserve their campsite online and to conduct other related transactions including obtaining fishing and hunting licenses, registering their boat, etc.

Users seeking information about the private campground (KOA) and federal park (Sleeping Bear Dunes) will receive notice that they are leaving the e-Michigan Web site and will view these screens in a pop-up browser window.

Focus Group Feedback

When looking at the various listings included as campsite choices, some participants like having as many options as possible while others do not think it is appropriate to include private campgrounds.

Other respondents feel that it would be acceptable to have private campgrounds listed on the site as long as they paid for the opportunity to have their listings included in the searchable database.

A suggestion was made to structure the listings to more clearly distinguish between State, federal, and private facilities.

Recommendations

Include private campgrounds in the search results.

Do not require private campgrounds to pay for the opportunity to have their listings included in the searchable database.

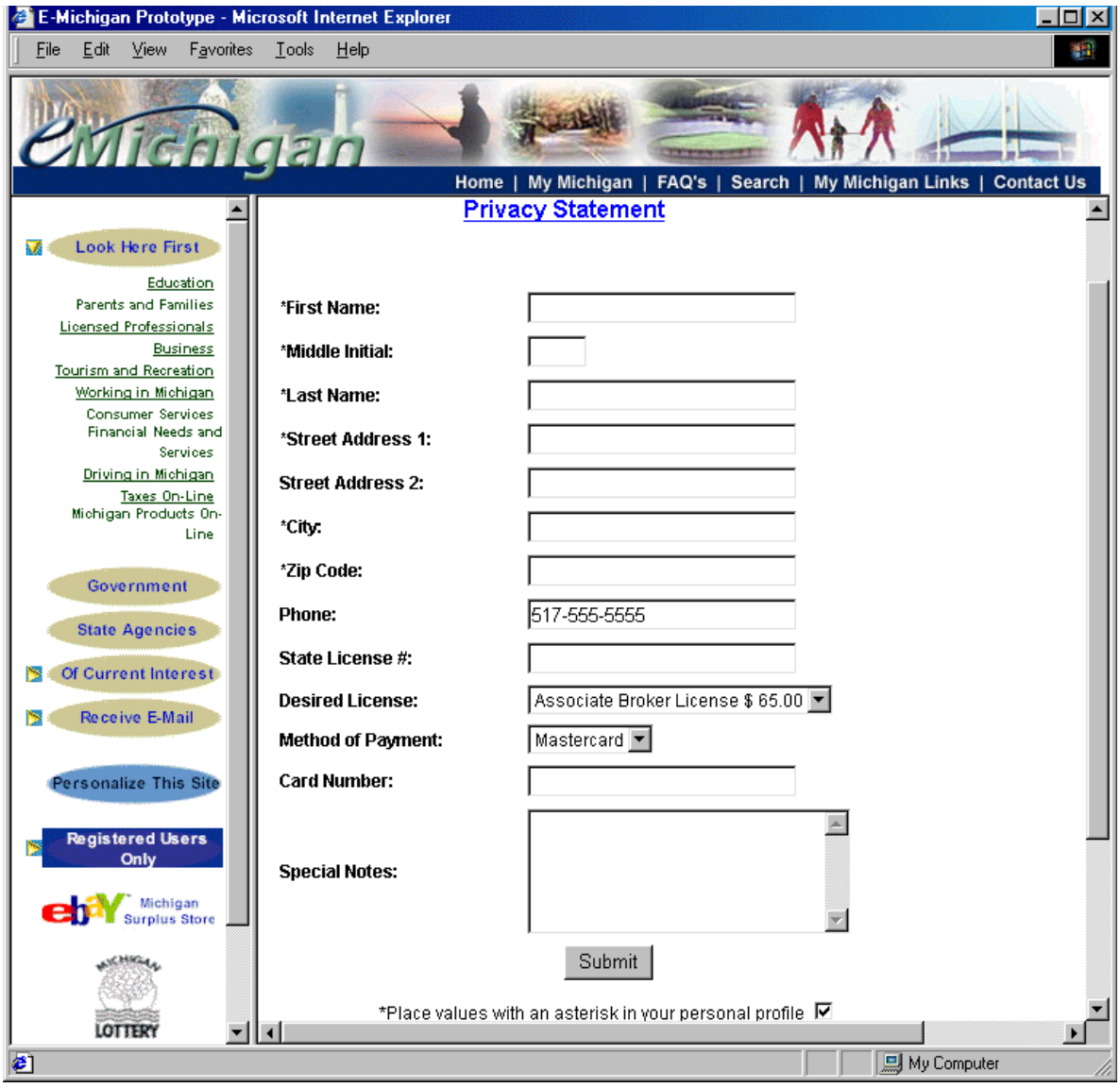
Include a disclaimer statement that the State does not endorse, or assume responsibility for, company products or services.

Display the search results by State, federal, and private campground subheadings.

Create a search tool that allows users to do a keyword search by the type of activity they desire (skiing, swimming, fishing) as well as geographic location.

Online Transactions

Campground registration is just one example of how the Web can be used for online transactions. The Real Estate License Form displayed below illustrates how the e-Michigan portal can meet the needs of a variety of different stakeholder groups. In this instance, a real estate professional may use the portal to apply for a broker's license.



Customers visiting the "Licensed Professionals" content cluster within "Look Here First" may submit their application and receive a prompt notification that their request has been received and processed.

Users may access this feature in a variety of ways. In addition to accessing it through the "Licensed Professionals" content cluster, they may click on the appropriate office within the Department of Consumer and Industry Services within the "State Agencies" button, use the

State Agency Directory, or use "Real Estate License" as a search term for the entire e-Michigan Web site.

To obtain a Real Estate License online, the customer must provide personal contact information and a credit card number with expiration date. The applicant is given the option of having this information stored as part of their personal profile information.

Customers have the opportunity to review a prominently featured online privacy statement to learn how their personal information will be protected.

Focus Group Feedback

Some participants are not worried about security, especially when the information is scrambled or encrypted.

Other participants worry about security and think the State's privacy statement should include assurances that contact lists will not be sold, or otherwise provided, to entities outside State government.

A few respondents suggested that the State use a "Secure Server" symbol similar to the lock symbol used on the Internet Explorer browser to assure users who may not take the time to ready privacy statements.

Recommendations

Scramble or encrypt transaction information.

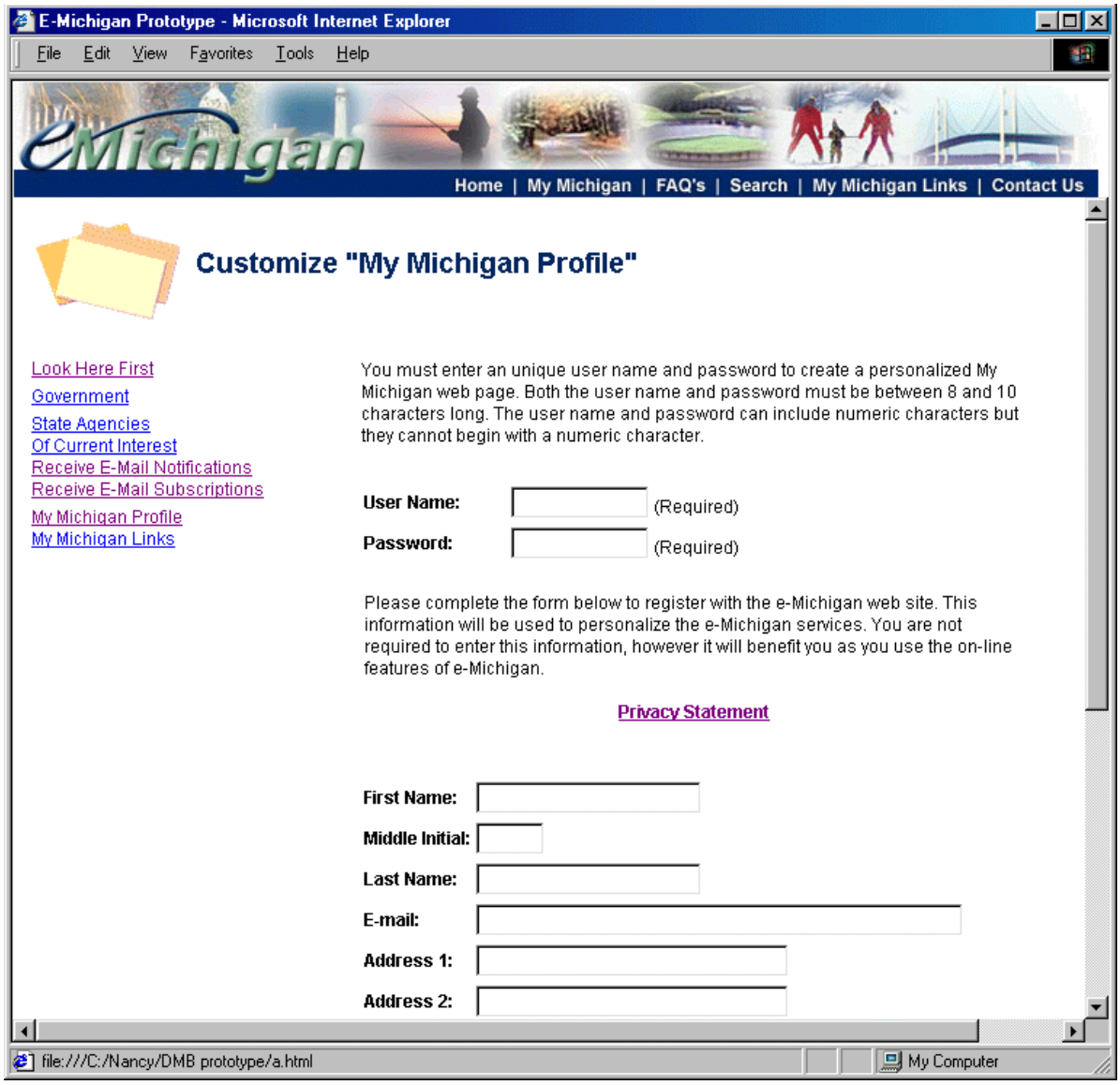
Create a privacy statement that makes it very clear how personal information will be used and protected. Ensure that such a statement can withstand requests for disclosure under the Michigan Freedom of Information Act.

At the very bottom of the Web page, change the wording that prompts the user to: "Add this information to my personal profile."

Provide a Secure Server and include a "Secure Server" symbol in a prominent place on the transaction screen.

Personal Profile Information

The personal contact information fields included in the "My Michigan Profile" are presented in the screen below. A real estate licensee who opted to have their personal contact information stored as part of their personal profile information, would find it populating the information fields at the bottom of this Web page.



A personal profile is not required to use the e-Michigan Web portal, however those who opt to have personal contact information stored in the "My Michigan Profile" will be able to utilize more fully the online features of e-Michigan.

Contact information from the profile is used to enhance customer service by pre-populating online forms used for various transactions, including applications, reservations, and location-dependent information queries (e.g., state representatives).

A licensed real estate broker who chooses to store personal contact information in this system has the option of receiving e-mail updates from the State regarding the status of continuing education credits, impending deadlines for license renewal, and other relevant notices.

Focus Group Feedback

Focus group members stated that they would be interested in this feature, particularly if it was clear how storing the information in the "My Michigan Profile" would benefit them.

One participant stated that, if he trusted the site and went back to it over and over, he would be more inclined to divulge the information.

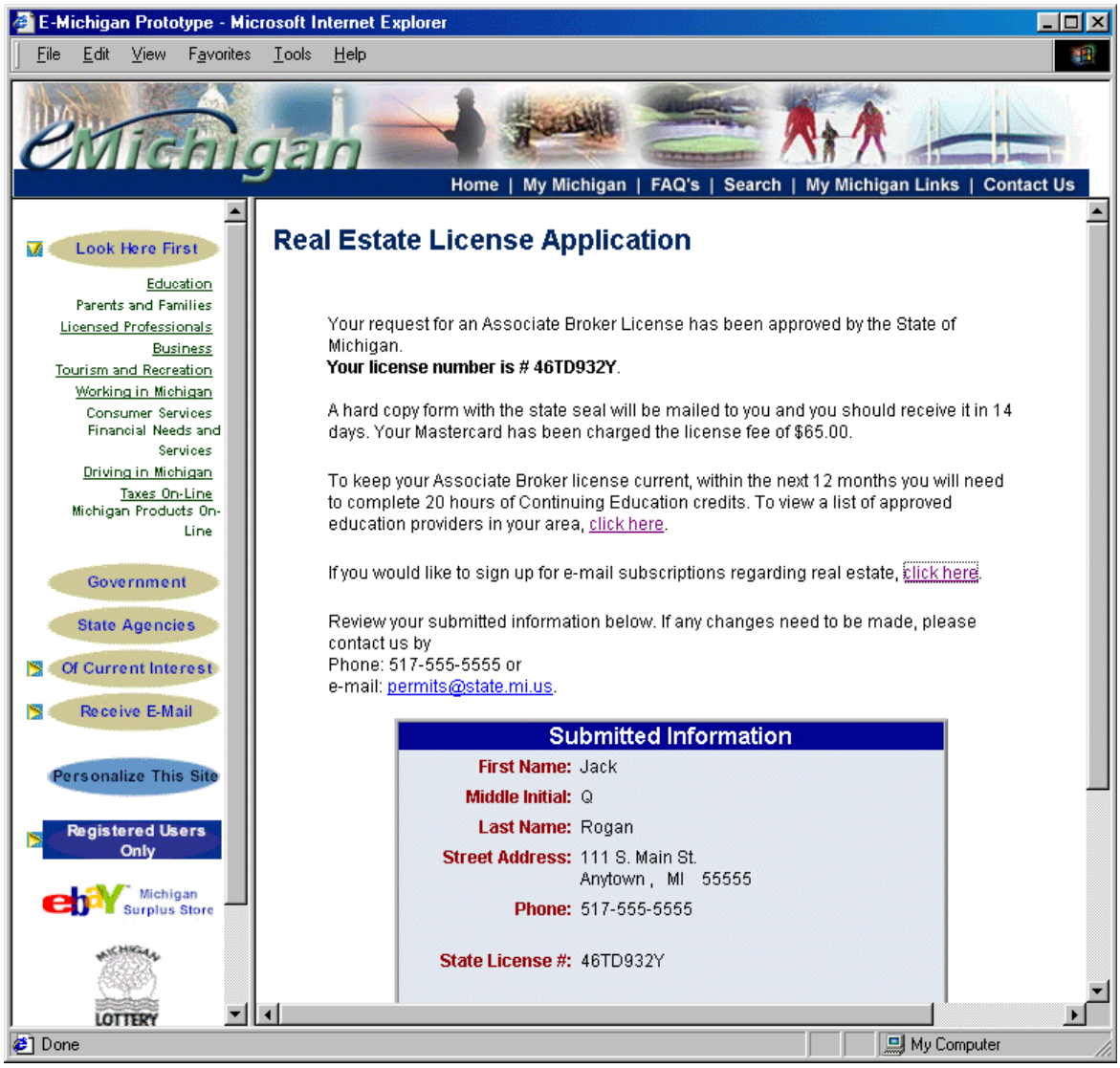
Many participants expressed concerns about the selling of personal information and are uncomfortable with the idea of divulging personal information over the Internet.

Recommendations

Create a privacy statement that makes it very clear how personal information will be used and protected.

E-Mail Notifications and Subscriptions

The screen below illustrates a two-step process for obtaining a real estate license online. Once the online application is submitted, the system generates an automatic response notifying the user that their application has been received. After the application is reviewed and approved, the user will receive an approval notice via e-mail. Both of these steps are shown in the screen below.



#

If the broker has saved personal contact information in a "My Michigan Personal Profile," they have the option of receiving e-mail notifications regarding the status of their license, including the number of continuing education credits needed for renewal.

The broker can opt to receive an e-mail notification when the expiration date of their license is near.

A hard copy of the approved license is sent to the user via conventional mail.

If the broker has chosen not to save personal contact information in a "My Michigan Profile," s/he may still opt to receive e-mail subscriptions to a broad range of topic newsletters, so long as they have supplied an e-mail address.

Focus Group Feedback

E-mail confirmations of online transactions and reservations are highly valued by focus group participants.

Some of the respondents are concerned that e-mail messages might be trashed inadvertently. They recommended that the State make it very clear in the title of the e-mail message that the contents regarded State information or updates.

There was a suggestion that users should be able to unsubscribe using a link embedded in the e-mail message itself.

Recommendations

Clearly label the e-mail message "Subject" title to make it clear that the notifications pertain to State government business or information.

Provide more prominent icon to emphasize the availability of e-mail subscriptions.

Provide more prominent icon to emphasize the availability of information regarding continuing education credits.

Include written label to explain the meaning of the icons.

Summary

This section describes and discusses the key design features and functionality of the e-Michigan home page portal prototype. By providing citizens with the most easily accessible and useful methods of finding the information they seek from the State of Michigan, the State can ensure that its citizens enjoy the full benefits of the many resources the State has to offer. The reactions of focus group participants to the prototype suggest that, in general, the design features and functionality are very consistent with their needs and interests, however as with any "work in progress," there is much more that can be done to provide the customers of e-Michigan with an e-government Web experience that communicates clearly the State's commitment to quality and responsiveness.

The final section of this report discusses next steps for the e-Michigan initiative, focusing on the lessons learned from the e-Michigan customer research project that need to be considered as part of the strategic planning process. Additional suggestions regarding next steps in planning and implementing selected aspects of the e-Michigan home page portal are included in the Appendix.

Section Four: Next Steps for the E-Michigan Initiative

The e-Michigan customer research has shown that a relatively large fraction of the public is eager and able to engage with the State government using the World Wide Web. A robust response by the State will provide far better service than government has traditionally delivered at a fraction of the cost. The prototype design presented in the previous section showed the outlines of such a response.

Even as the State moves forward with this initiative, it must continue to recognize, as a matter of public policy, that not all residents are wired. Some Michiganians lack the technology, capability, or interest to connect with the State electronically, and, although they represent a declining segment of the population, their ability to receive information and services from government must be maintained. But for those increasing numbers of customers who connect via the Internet, the research and development done for this project suggests some important next steps. In this section, we present a summary of the next steps implied by the move to e-government by the State. These include:

Fulfill orders zealously
Pursue new revenue streams
Craft a credible promise of confidentiality
Market the portal aggressively and consistently
Track customer satisfaction
Commit to continuous improvement
Monitor and push system usage
Continue to push the envelope

Each of these important next steps is discussed in the section below. All must be considered by any vendor retained by the State to assist with the development of the portal. If embraced by the State of Michigan, these actions will assure that its Web portal will move to the forefront of electronic government in the United States.

Fulfill orders zealously. Perhaps the most critical aspect of the e-Michigan portal is the absolute imperative that it deliver all that it promises. Fulfillment of customer orders for information or transactions will determine the ultimate success or failure of the system. Commercial firms like Amazon.com invest untolled millions in the hardware that processes transactions and the systems that deliver the goods. If Michigan is to enter the world of e-Government in a serious way, the State must decide whether it will make commensurate investments in fulfillment. Given the types of services contemplated in the prototype, this will take the following three forms:

    Acknowledgment. When a customer places an order or makes a request and it cannot be filled instantly, the system must be designed to acknowledge that it has been received.

Further, it must tell the customer when the order will be filled. As shown in the focus group research, the absolute timeline for delivery is not nearly as important as honoring whatever commitment is made to customers.

Accuracy. From a customer's point of view, an order is not truly fulfilled unless it is done so accurately. An inaccurate order requires the customer to follow up and attempt to resolve the problem. This process results in dissatisfied customers and the waste of time of both customers and staff. In general, electronic delivery must carry with it an order confirmation number to simplify tracking in case of a problem. Typically, e-Commerce systems generate an e-mail confirmation, in addition to the information displayed, as the transaction is completed. This provides the customer an electronic record that is more persistent than a Web page.

Delivery. Some transactions can be completed instantly and confirmed electronically. Others, however, require a physical completion, such as the mailing of a license or deer tag. Again, the customer must be told when to expect delivery and the State must live up to the commitment. When unusual circumstances prevent timely delivery, the system must be capable of detecting orders that will be late and notifying customers of the nature of the problem and the new delivery date.

The fulfillment process must be monitored *systematically* to determine whether the automated and human-powered systems are performing properly. Reviewing complaints on an *ad hoc* basis is not adequate, since complainers are not representative of all customers.

Pursue New Revenue Streams. The State must move aggressively to strike deals with commercial enterprises for a presence on the e-Michigan Web portal. One approach amounts to "page sponsorships," as illustrated by the link to Gander Mountain in the camping section of the prototype. Another might be to contract with private entities to provide content for at least some of the e-mail subscription services. A third illustration is an auction arrangement with a commercial provider for surplus state goods. Such relationships must be negotiated wisely by the State to assure that a fair price is realized.

For a page sponsorship with a link to a commercial Web site, compensation is typically arranged on a *per click* basis, that is, the State would be paid a fixed amount for each person who used the link. The value of such an arrangement is much higher for "qualified prospects" which suggests that such sponsorships would have less value per hit at the top level pages and more value in content area pages that suggest a specific interest by the user.

For content providers, the compensation would be similar. An agreed upon price would be paid for each individual who requested the particular information update for a set period of time. For instance, Merrill Lynch might agree to provide a periodic bulletin on financial planning. The State Web portal would offer the financial planning bulletin, making clear that Merrill Lynch would be the provider, and customers could choose to receive it by checking a box. If 10,000 individuals check the box, the State's revenue would be 10,000 times the rate for each month of the contract.

Online auctions generate higher prices than private auctions because more potential bidders have access to the goods and because the auctions typically last for a period of days rather than minutes. The State could generate revenue by negotiating an arrangement with a commercial auction provider such as eBay to be the sole auctioneer for State goods. For the provider, this would represent a huge influx of auction items, which brings with it substantial value, and for the State, it would mean higher prices for the goods. The State would negotiate a substantially reduced fee for listing its items for auction. The work of the State employees at the surplus goods warehouse would shift to posting the information and arranging for the shipping of sold items. The warehouse would no longer have to physically house hundreds of people for an auction. Since the auctions would be ongoing instead of taking place only several times a year, a much smaller volume of merchandise would accumulate freeing much of the warehouse space to be used for other purposes.

Selecting providers for these arrangements should be done through a request for proposals (RFP) process. The RFP would specify the type of content the State would be seeking and the experience and credibility of the provider. For qualified providers, the State would retain the right to negotiate final terms and conditions, including price. This approach would obviate the problem of having to accept advertising from all comers—an issue that would be very difficult to manage if the State were to allow banner advertising.

Craft a credible promise of confidentiality. The State must develop a clear, simple promise that personal information provided for the purpose of accessing the full functionality of the e-Michigan portal will never be used for another purpose. Doing so will preempt any worries which might arise about uses of the information by those inside or outside State government. Customers must have confidence that, if they give a credit card number to reserve a campsite, it will not be used to collect delinquent taxes or child support. They must also be assured that their e-mail addresses or other profile information will not be released to marketers or political organizations. A link to this statement must be prominently displayed on each page on which personal information is requested.

Even if such a statement can be devised, the State may face legal obstacles to abiding by it. The Michigan Freedom of Information Act (MCLA 15.243) indicates that information held by a public body cannot be exempted from disclosure simply because it is personal in nature. The Act requires that, in order to be exempt, the public body must be able to show that ". . . disclosure of the information would constitute a clearly unwarranted invasion of an individual's privacy.[1]" If individuals decide to provide personal information over a non-secure Internet connection, it could be reasonably argued that disclosure would not meet this narrow test.

[1] Excerpt from the Michigan Freedom of Information Act, MCLA Section 15.243, "Exemptions from disclosure; withholding of information required by law or in possession of executive office:

Sec. 13. (1) A public body may exempt from disclosure as a public record under this act: (a) Information of a personal nature where the public disclosure of the information would constitute a clearly unwarranted invasion of an individual's privacy."

In order to protect information provided with the promise of confidentiality, the e-Michigan office should:

Seek legal counsel on whether confidentiality can be maintained under current law. If necessary, seek a specific exemption from the Michigan Freedom of Information Act.

Market the portal aggressively and consistently. The State communicates with the public millions of times per year. Tax forms, license and registration renewals, and hunting and fishing licenses and guidebooks account for well over 10 million contacts—and these are only a small fraction of the total. All such communications must carry the top level Web address for the portal. While various agencies are likely to argue that a more specific Web address must be included to help customers find a particular service quickly, the top level address should always be included. As the State attracts more traffic to the site, it will drive up the value of the new revenue streams mentioned previously. It will, of course, also be providing service to more customers and, ultimately, will drive down the volume and cost of traditional services.

Track customer satisfaction. Related to, but distinct from, monitoring fulfillment is the need to constantly assess the degree to which customers are satisfied with the portal. Customer satisfaction is comprised of several components which together determine just how satisfied a customer will be. For the e-Michigan Web portal, these might include:

Value. Does the system provide customers good results relative to their investment of time?

Speed. Does the system meet customer's expectation for rapid loading of pages and transaction processing?

Timeliness. Does the system promise a specific timeline for delivery? Does it deliver when it promises?

Friendliness. Is the system as friendly to customers as the best human service provider would be? Does it speak a non-technical language that customers understand or is it sprinkled with insider jargon?

Ease of use. Can customers find what they need quickly and do the necessary business in a straightforward manner?

Accuracy. Does the transaction generate the right result? If mailed, does it go to the right place?

Overall experience. On balance, was the experience in using the system a positive one?

Often, satisfaction is measured by asking customers to rate their level of satisfaction with each component on a numeric scale. These ratings can then be combined into a satisfaction index, taking into account which components influence overall satisfaction most heavily. The

individual ratings can help the State identify the aspects of the system that contribute to and contradict customer satisfaction.

Commit to continuous improvement. The expectations of Web users are high, but the State is perfectly capable of building an e-Michigan portal that meets or exceeds those expectations. The real challenge comes from the rate of increase in what customers want, need, and expect from an electronic connection with government. As customers begin to do *some* transactions on the Web, they will quickly wonder why they cannot do *all* transactions electronically. When they are first offered a subscription to an update of *one* subject of interest to them, they will immediately think of *other* subjects that could be treated the same way. The State will face a steep curve of rising expectations driven by its own success, but also by the offerings of commercial Web sites. It is, by contrast, to those that the State's portal will be judged, not solely in terms of the improvement over the old way of doing business with the State.

Customer satisfaction research can provide one input into the improvement process, but there must be others. The State must *anticipate* customers expectations and service opportunities by scanning the emerging Web technologies and imagining how they might be adapted to the public sector.

This implies that Michigan must invest in a significant commitment to continuous improvement of its Web offerings, both in terms of their breadth and their quality. When the portal becomes operational, the work of the e-Michigan Office will have just begun. This investment must take the form of an ongoing engagement with a technical partner who has the capacity, competence, and mandate to make improvements as necessary. Such comment will increase the pace at which change can be made and, therefore, the State's ability to maintain the highest levels of customer satisfaction.

Monitor and push system usage. The e-Michigan portal has the potential to dramatically shift the ways in which the public interacts with government. To determine whether and how this is happening, the level of usage of the system must be monitored continuously and compared with the usage of traditional services. Accurate baseline estimates of the use of each delivery system must be established and targets set for migrating users from the traditional channels to the Web. Budget targets for agencies should reflect an expectation that such a shift will occur, with increasing budgets for electronic service and decreasing budgets for traditional methods. Without such a financial impetus, it is likely that the old systems would be maintained at their current costs and the Web delivery would be a costly add-on. Instead, the State must push for a net savings over time from this shift. Savings would accrue from reduced printing runs of many publications, shifting of staff resources from labor intensive service delivery to more efficient Web delivery, and ultimately lower facility costs.

Continue to push the envelope. The prototype for the e-Michigan portal encompasses a combination of capabilities not currently found on any state Web site in the nation. This will soon change. It is almost certain that other states are engaged in development processes much like this one and may yield similar results. There are, however, other areas not explored in this project which merit attention by the e-Michigan Office that go beyond service transactions to governance itself. Examples include:

Voting. As security issues are resolved, Internet voting is becoming technologically feasible. Along with many other efforts by the Secretary of State, Internet voting could increase voter turnout. If coupled with increased use of absentee ballots, it could eventually eliminate the need for most physical voting places. The cost savings of such a shift would be substantial.

Electronic town hall meetings. The popular chat room technologies could easily be adapted to focused discussion of important public issues. Chats with public officials could be coupled with Web-based issue content that would bring the public and decision makers into direct contact, without the intermediation of journalists.

As Michigan moves forward aggressively to create the most advanced state Web presence in the nation, it is setting the stage for a profound shift in the relationship between the public and the government. If the Web lets the public see the government as competent and helpful, rather than bumbling and heavy-handed, it will lead to a different feeling about all public officials and employees. Just as the Web-savvy of Amazon.com makes us feel positive about the company and its leadership, so the e-Michigan portal can reshape public opinion about State government. This shift can result in the public giving the government the benefit of the doubt, rather than assuming the worst at every turn. Eventually, this new relationship will affect the expectations that the public has of candidates for public office. If government is seen as working well, then "running against the government" will go out of fashion as a campaign strategy.

The e-Michigan initiative is far more than a technical shift from one delivery system to another, from a less efficient to a more efficient strategy. It is an opportunity to forge a relationship between the government and the public that may dramatically change the public's perception of the capacity, responsiveness, and, ultimately, the value of State government.

Appendix: Prototype Design and Development Assumptions

Organization

Creation of the e-Michigan portal will be a priority within and across State agencies and branches of Michigan State Government.

A priority list/work plan for e-Michigan build out will be developed, adopted, and funded.

Interagency teams working to develop content will have the authority to make decisions regarding same.

Interagency teams working to develop content will reach consensus within established deadlines.

General Features and Functionality

The e-Michigan portal will be compatible with version 4.0 of Microsoft Internet Explorer and version 4.0 of Netscape.

The content of the e-Michigan portal will be cross-cutting on several different dimensions: across State agencies, administrative units and branches of State Government, across levels of government (federal, state, local), and across public/private entities.

Users will receive notification each time they click on a hyperlink that takes them out of the Michigan State Government Web pages.

State agency pages linked directly to the portal will show the content of the Web page but not the banner of the state agency from which the page has been drawn.

State agency Web sites will provide the "date last updated" on all Web pages.

State agencies will take full responsibility for assuring that the information on all Web pages is timely and accurate.

State agency Web pages will include a telephone number and e-mail address that users can contact if they do not find the information they need.

Emphasis will be placed on quick page-loading speed (5 seconds or less).

Large graphics (pictures) will be minimized and thumbnails will be provided to increase loading speed.

The portal will have streaming video capability.

State Web-page links will be periodically checked to assure that the correct Web address is being used and that no error messages occur.

Hyperlink pages outside the State's domain will be checked regularly for functionality, correct Web address, error messages, etc.

Front Page

A comprehensive Michigan State Government Web-page search engine that searches by employee name, agency, unit, and keyword/topic will be developed.

Sets of questions and answers for various e-Michigan user interests will be identified and developed.

A privacy statement will be developed that explains clearly and definitively how the State intends to use any personal information captured through use of the various features of the e-Michigan portal, including provision of identifying information to sources both internal and external to the State.

The privacy statement will draw a distinction between use of personal information provided within the State's Web pages and personal information requested as part of transactions outside the State's domain (i.e., through hyperlinks).

The State of Michigan will honor the promises made in the privacy statement.

An on-line customer/user satisfaction survey will be created and the responses will be continuously monitored to identify customer needs and implications for the Web portal.

Feedback coming to the State through the "Contact Us" feature will be monitored closely and responded to quickly and appropriately.

If users send questions via the "Contact Us" e-mail feature, they will receive an immediate response notifying them that their e-mail has been received and how long they should expect to wait before receiving a response.

The accuracy and currency of e-mail subscription and notification distribution e-mail addresses will be periodically checked and edited.

A policy will be developed stating the standard for response times for customer e-mail inquiries and the State will consistently meet or exceed the standard.

Two additional areas, available for registered users only, will be developed for State employees (Intranet) and those doing business with the State of Michigan (Extranet).

Interest Clusters

There may be some duplication of content within each of the interest clusters (i.e., they are not mutually exclusive).

Users opting for e-mail notifications will receive them in a timely manner.

Content for e-mail subscriptions may be internal to State Government or may be provided by an external entity, providing an additional revenue stream for State Government.

Developmentally appropriate, non-grade specific content will be identified or developed for each learner category in the education cluster.

Content categories within ALL interest clusters will cross-cut state agencies, levels of government, and public and private entities wherever possible.

External (to Michigan State Government pages) search engines that are age appropriate (e.g., Ask Jeeves for Kids, Study-Web) will be identified and provided to learners at each level (beginners, intermediate, advanced).

E-Commerce

The e-Michigan logo and other e-Michigan Web pages will be copyrighted.

All on-line transactions will be secured.

The State will be rigorous in utilizing security features that protect customer information databases.

The State will solicit and select advertising proposals from vendors in specific content categories that relate to the theme or thread within which the ad may be placed.

The State of Michigan will develop a partnership with an existing, well-established, Web-based vendor (such as e-Bay) to conduct Web-based auctions of surplus materials on behalf of the State of Michigan.

Underlying Databases

The underlying database that maintains users' names, passwords, optional personal information, and requests for e-mail notifications and subscriptions must be able to communicate with various State agency databases that maintain records of specific customer transactions (e.g., drivers' licenses, license renewal dates, etc.).

E-Michigan Customer Research

Suggested Theme: Business

Part One: Executive Overview

Theme Name
The theme should be entitled "Business."

Content/Functionality
The content needs of the business community include the following:

Regulatory information, including the generally applicable (i.e., employee issues) and the industry-specific (i.e., environmental).
"How-to" information concerning business planning, organization, and start-up.
Access to capital for business expansion.
Legislative updates.
Tax issues, including on-line filing opportunities and on-line help with the rules governing filing, and spanning the Single Business Tax; wage reporting for unemployment insurance purposes; sales, use and withholding tax; property taxes; and other business-related taxes.
Information about business insurances.
Information and resources for the recruitment/retention of quality employees.

The preferences of the business community regarding the e-Michigan portal's functionality include:

Search capacity keyed to business type, size, and other characteristics.
Keyword search capacity and "Ask Jeeves"-type method of searching for information.
High-level security to ensure that business information is protected.
Access to "new developments," i.e., a way to check for emerging issues/laws/regulations pertinent to one's business.
Access to email and preferably phone numbers for additional help beyond Web offerings.
Quick-loading pages (limited use of graphics).

Organization
Several themes regarding the organization of the business theme emerged from the research. The most important of these are as follows:

Issues of compliance (such as tax filing, regulatory issues, licensing issues, and appropriate business start-up procedures) typically require a business to interact with several State departments, each of which has some jurisdiction or role. Businesses struggle to determine precisely what is required of them and which Michigan department

or agency administers which rules. Accordingly, the business cluster should offer extensive linkages across departments and agencies that help a business owner to connect to all appropriate agencies. Since many local jurisdictions also regulate business activities, the cluster must also link to the entities that do so.

Business associations and owners can and do distinguish between issues of compliance and business assistance services. This should be a high-level structural distinction within the business cluster.

Business assistance services for small firms (85% of Michigan businesses have fewer than 20 employees) are currently provided by a statewide network of Small Business Development Centers. The site must link to Web site of this network to provide easy access to the services it provides.

Many issues of compliance are industry-specific. In particular, environmental requirements differ depending on the industry Accordingly, an ideal organizational approach would allow a business to specify their industry (perhaps even their SIC code) and view a list of appropriate regulations.

Business start-up information is seen as a distinct information need. Ideally, a comprehensive start-up kit consisting of all requirements for the legal initiation of a new business would be made available. This should also be customized based on the specific intentions of the entrepreneur. This approach would assure that each customer would get the information they need, but no more or less.

Additional Information Sources

The business community needs information external to the State of Michigan. In particular, linkages to the federal government would be an important aid to business.

Listings of insurance agents licensed to sell worker's compensation and other business insurances may be beneficial, as long as the listing neither explicitly nor implicitly endorses any agent or company.

Some types of businesses particularly hard-hit by the tight labor market may benefit from access to resources designed to help them recruit, retain, and train their employees

Linkages to the many Michigan business associations are generally desirable in the associations' eyes, and linkages to federal business associations may also be of assistance.

The associations are themselves valuable resources for business owners, and the business theme should link to their Web sites.

Priorities for Development

The most frequently expressed desires by representatives of the business community include a more effective organization of all business information, a more effective organization of regulatory information in particular, and a comprehensive business start-up kit to guide a prospective entrepreneur through the process.

Requests for more information were far less frequent than requests for a "business road map" that can help business owners understand what the Michigan law requires of them and where they may access needed forms.

Tax information was seen as far less important than regulatory information, probably because most business owners employ an accountant to handle their business taxes.

Much of the information that business owners need and want is already available on Michigan web pages—it is the presentation and organization of the information that is at issue.

E-mail notifications and subscriptions were received in a somewhat lukewarm fashion by business representatives. Where interest was expressed, a desire for notification of license and permit expirations was commonly of interest, as were industry-specific legislative and regulatory updates.

Priority should be placed on the creation of an organizational scheme that will permit effective linkages across agencies and a business checklist.

Next Steps

Organizational. The team that develops the content of the business cluster should include, minimally, representatives of the Michigan Economic Development Corporation, the Department of Environmental Quality, the Department of Consumer and Industry Services, the Treasury Department, the Employment Security Agency, and the Michigan Small Business Development Center Network. The Department of Natural Resources administers wetlands regulations and should be consulted, and the Michigan Department of Career Development could contribute information about employment services and training opportunities (including sources of customized training). These agencies' legislative liaisons can assist with the incorporation of legislative materials relevant to business. Representatives of the industry-specific business associations may offer valuable assistance in cataloguing regulatory requirements for each industry.

Mechanics. After a team is gathered, an intensive interagency scan of available information should be conducted to inventory currently-available Internet resources. These resources are extensive but often less than user-friendly, and the scan should therefore include an assessment of the degree to which each resource can be effectively used in its current state. Resources—and their component parts—could be classified by the industry or industries they serve (including an

"all businesses" category) and by whether they are necessary at business start-up or not to facilitate re-organization of business content according to the research findings.

Responsibilities. The business cluster reveals a more pressing need for cross-agency communication and coordination than any other cluster studied in the customer research. The involvement of so many state agencies and departments in business regulation and services may present difficulties related to responsibility for and ownership of the business thread project. An external leader tied to no specific state agency may be necessary to ensure that the project has effective leadership.

Part Two: Research Summary

Introduction

Information on business owners' and managers' preferences for the e-Michigan portal was gleaned from five sources, including an analysis of e-mail to the Network Operating Center (the "webmaster" of http://www.state.mi.us), an analysis of the contact logs maintained by five state agencies (Secretary of State, Department of Natural Resources, Consumer and Industry Services, the Treasury Department, and the Michigan Department of Career Development), a series of stakeholder interviews with business association representatives,[1] a small business owner focus group, and the general population survey.

Of these sources, the primary information on the business thread was gained from the stakeholder interviews and the focus group.

Content

All six business association representatives mentioned the need for more accessible information about the regulations that govern members' businesses. Many ideas were put forth about how this information could be organized, but all interviewees' comments suggested that some manageable method of searching regulations for those that apply to one's specific business is needed.

Interviewees comments also frequently indicated a persistent stress among business owners of "sins of omission," the fear that some regulatory requirement has not been complied with due to a lack of awareness that it exists or the presence of conflicting information about its components. These comments suggest that a check-list of some kind would be of tremendous value to the Michigan business community.[2]

Specific regulatory issues mentioned included air and water quality issues, wetlands regulation, permits and/or licenses for the sale of certain goods, employee issues, worker safety, and mandatory posters. Most of the representatives interviewed placed a higher priority on accessing requisite information than on completing paperwork on line, although there was consensus that on-line filing opportunities were desirable. One representative suggested that two versions of regulations should be made available: a front-line version using layman's terms supported by the actual regulatory text was considered an ideal presentation format. Another suggested that regulations change

[1]Interviews were conducted with representatives of the Small Business Association of Michigan, the National Federation of Independent Businesses, the Michigan Chamber of Commerce, the Michigan Manufacturers' Association, the Michigan Grocers' Association, and the Michigan Retailers' Association.

[2]It should be noted that many regulatory requirements apply to public sector entities as well. For example, school buildings are subject to air quality and employment regulations. The creation of a database of regulations that permits searches by business type could be expanded to serve public sector entities.

frequently and that an email subscription newsletter disseminating news of recent changes—ideally including changes initiated at varying levels of government—would be valuable. The same information could be provided on a "business updates" web page.

Poster requirements apply to all Michigan businesses and cover such issues as minimum wage, Americans with Disabilities Act (ADA) requirements, workplace discrimination, youth employment, worker safety, unemployment insurance, the Michigan Handicap and Civil Rights laws, and workplace discrimination. One interviewee described the current availability of information and the actual posters as a continuing problem for his group's members: several state sources list poster requirements, but different sources list different requirements and the lists are often not up to date. Sometimes business owners are told that certain posters are required, but out of print and simply unavailable. The problems in acquiring the information are sufficiently severe that a private sector market has emerged to sell business owners what they are supposed to be able to access for free. A comprehensive, up-to-date listing of required posters with on-line ordering and/or download capacity would be ideal.

Environmental regulations tend to be highly industry-specific and cause great difficulty for business owners that cannot determine which regulations apply to their business. DEQ's Web site has information on many of these regulations, and was praised by some for recent improvements. However, there is still considerable room for improvement according to representatives of many of the affected business associations. Environmental regulations including air quality, water quality, special permit situations, brownfields redevelopment, and wetlands should be keyed to business characteristics in order to permit a business owner to describe their business (something they know) and receive information about all applicable regulations (something they don't know but need).

Four of the six interviewees expressed a desire for comprehensive information about how to start a business in Michigan, a theme that emerged in the small business focus group and the email analysis as well. The primary focus of these comments was compliance as opposed to assistance—the start-up information was usually described as a kit of forms and directions to ensure that a new business is in compliance with all appropriate State laws and regulations, with on-line filing opportunities for all requisite forms. Some of the interviewees did suggest that such a start-up kit would be an ideal place to locate information about business assistance services as well. This could be addressed easily through a connection with the Michigan Small Business Development Center Network would be of great value for the businesses with fewer than 20 employees. Additionally, many of the incoming e-mail with business start-up inquiries were from current or prospective business owners considering a relocation to Michigan. The state's economic development efforts could be well-served by the inclusion of business assistance information in an on-line start-up packet.

Many other content ideas emerged from the research. SBAM's representative suggested that information about sources of capital for business expansion and research and

development grants was particularly important to the small business community. Attendees at the small business focus group were interested in information about doing business with the state. The representative of the MRA indicated interest in on-line information and opportunities for recruiting employees. Wage reporting for the Employment Security Agency was suggested as a viable on-line reporting process, and there was widespread agreement that any tax filing or reporting for tax purposes should be available in an on-line format (although urgency was generally not high with respect to tax matters). One representative was more concerned that an on-line channel for communication with the Department of Treasury regarding the status of tax filings be made available than actual opportunities to file electronically. Many representatives indicated an interest in the availability of legislative content pertinent to business generally or in an industry-specific presentation format.

Implications: The most valued aspect of a business thread would be a "one-stop-shopping" format that offered packaged information about regulations and other issues of compliance to businesses and that packaged information about business start-ups into an easy-to-use on-line format. These developments should be a higher priority than the development of additional web resources.

Functionality

The most prominent themes that emerged from the research related to the functionality of the e-Michigan portal include search capacities, speed, and linkages. The need for effective search engines was mentioned by every business association representative and by the participants in the small business focus group. Search engines for business will ideally go beyond key word and Ask Jeeves-types of search capabilities—although these too are valued—to permit searches by industry and size.

Business owners additionally value web pages that load quickly, and the majority of the research suggests that small businesses in particular work with older equipment that may not manage memory-intensive web pages well. Small businesses are also reputed to lag larger businesses in their sophistication in the use of Internet resources, suggesting a need for more intensive on-line help in areas to be frequently used by small businesses (i.e., start-up kits, capital access). Small businesses may be slower to use customization features in the e-Michigan, and a difficult target for email updates and subscription services.[3]

Implications: The business community's focus on better organization and presentation of governmental information carries over into a preference for powerful search tools. These aspects of usability are more valued than are graphics and other aspects of design.

[3]Ironically, the representative of SBAM pointed out that many technology, web-development, and e-commerce businesses are small businesses. The small business community in Michigan may best be described as *generally* inclined to lag behind big business in the adoption of technology, but with important sectors in technology that may be at the forefront of use of Web services.

Customization might assist business owners to "organize their government," but their problems with locating the requisite information and determining whether or not it applies to them limit the potential of MyMichiganLinks and other customization features. Prior organization of information across agencies is a necessary prerequisite and a first-order concern.

Security and Other Concerns

The business research efforts revealed considerable concern about the security of on-line transactions with the State of Michigan. While there were some indications that business owners share general population concerns about theft of credit card information and insecurity that a transaction was "really" completed in an on-line environment, the more frequently-expressed concern regarded the State's management of proprietary information about a business. Many business assistance services require the submission of information about a business that exceeds information to which the state is generally entitled, and some of the business association representatives felt that a tight firewall between these types of applications and documents such as tax records was absolutely necessary if any use of business assistance services were to occur. In addition to "state-of-the-art" security, it must be *clear* that security is top-notch, or business owners will shy away from the use of the on-line environment.

Similar concerns rippled through business owners' and representatives' reactions to the idea of a customizable portal. While some thought that a feature that retained business name and address information and pre-entered it into an on-line form was attractive, others cautioned that the concept if taken too far might engender suspicion and distrust among an already-distrustful business community.

Implications: The State of Michigan must develop policy regarding the use and sharing of business information across agencies and communicate this policy clearly and visibly.

Other Notable Points

At some point in the interview, nearly every representative of a business association expressed some sense of threat regarding the e-Michigan portal. Some business associations may perceive e-Michigan as a threat to their member services—if members have an easier time learning about governmental requirements and conducting transactions with government, they may require less assistance from their associations. Vendors selling state products such as lottery tickets or hunting and fishing licenses may experience less traffic should these products and/or services become available on-line. Association newsletters frequently include legislative updates, and e-Michigan email subscriptions may compete with these publications. Finally, many association Web sites offer organized linkages to state, local, and federal agencies serving business that may become less necessary with a better-organized Michigan Web presence.

Nevertheless, nearly every association representative interviewed was eager to link their Web site to the new e-Michigan portal, although some indicated that their willingness to link sites was contingent on the quality of the final product.

Implications: The involvement of business associations could be of great assistance to the development of the business thread of e-Michigan. However, in order to encourage the involvement of the associations, the state must be prepared to understand their concerns and offer reciprocal linkages to their Web sites.

Part Three: Web Address Listing

e-Michigan Themes
Business

Content	*Web Address*
Regulatory	
Michigan Business Guide to Worker's Compensation	http://medc.michigan.org/glocation/services_index.htm
A number of regulatory sites are available at these recently revamped Web site.	http://www.cis.state.mi.us/
Department of Agriculture Industry Services	http://www.mda.state.mi.us/industry/index.html
Environmental	
Regulations administered by the MDEQ	http://www.deq.state.mi.us/dept/envregs.html
Employment	
Michigan Department of Career Development Job Training page.	http://www.state.mi.us/career/Core/2frame2.html
Posters	
All of the basic posters any place of employment must post.	http://www.cis.state.mi.us/ua/posters.htm
Start-up	
Down Loadable Guide to Starting an Business in Michigan	http://medc.michigan.org/glocation/starting_index.htm
Search for Required Licenses	http://medc.michigan.org/glocation/starting_index.htm
Business Assistance	

Michigan Small Business Development Center Network	http://www.michigansbdc.org/
Business Associations	
Small Business Association of Michigan	http://www.sbam.org
Michigan Chamber of Commerce	http://www.michchamber.com
Michigan Grocers Association	http://www.michigangrocers.org [under construction]
Michigan Retailers Association	http://www.retailers.com
Michigan Manufacturing Association	http://www.mma-net.org
Tax Issues	
List of Treasury Web pages that are useful to retailers	http://www.treas.state.mi.us/welcome/subindx/retailers.htm
List of Treasury Web pages that are useful to manufacturers.	http://www.treas.state.mi.us/welcome/subindx/manufacturers.htm
SBT	
Lists all taxes in Michigan with an explanation and resources for each including SBT.	http://www.treas.state.mi.us/mitax/mitxindx.htm
Sales, Use, Withholding	
Department of Treasury Sales, Use Withholding information.	http://www.treas.state.mi.us/mitax/suw/suwindex.htm
MEDC Capital Access Assistance	http://medc.michigan.org/glocation/services_index.htm

E-Michigan Customer Research

Suggested Theme: Licensed Professionals

Part One: Executive Overview

Theme Name
The theme should be entitled "Licensed Professionals," but it is important to note that there are a vast number of categories of licensed professionals in the State of Michigan. To examine the needs of licensed professionals in depth, the research focused on one specific group of licensed professionals—those in the real estate industry. While most of their needs can be applied generally to the needs of all licensed professionals, each group of licensed professionals is likely to have their own specific needs as well.

Content/Functionality
The content needs of licensed professionals include the following:

Services related to the application for, transferring of, and renewal of state held licenses including information about continuing education requirements and status.
History and action taken regarding any complaints that have been filed against a license holder or others in their profession.
Income tax/small business tax services.
On-line FOIA request capabilities.
Legislative updates about industry regulations.

The preferences of licensed professionals regarding the e-Michigan portal's functionality include:

Phone directory that is searchable by department, topic, and name**.**
Quick loading sites.
No banner advertising.
Search engine capabilities.
Information organized by topic rather than agency department with easily accessible links.
Security for on-line transactions that involve the transfer of personal or financial information.
Guarantee that the information will not be sold by the State of Michigan.

Organization
Several themes regarding the organization of the licensed professional's cluster emerged from the research. The most important of these are as follows:

The organization should allow customers to search for licenses and information about licenses in a database that includes all State held licenses regardless of the Department that has jurisdiction over a particular license.

All of the information about a particular license (application/renewal forms, history of complaints, education requirements, approved courses, etc.) should be consolidated. Furthermore, many licensed professionals hold more than one license. Users should be able to view all of their licenses and their renewal dates from the same screen.

There is a high demand for the ability to apply for and renew professional licenses on-line. Based on feedback from the customer survey, interest in this transaction was ranked second only to on-line camping reservations.

Industry specific information should be included with licensing information about that particular industry. Based on feedback from focus group participants, there is an interest in accessing information about continuing education and career development resources when information about one's license is accessed.

Additional Information Sources

Licensed real estate professionals need links to information outside of State Government.

Links to county and local government would be useful to obtain industry specific information and services (for real estate professionals this included information on property deeds and taxes, building and construction permit applications, and local schools.
Links to professional associations or related industry sites would be useful.

Priorities for Development

Given that the licensing of professionals is a high volume activity for the State of Michigan and the fact that licensed professionals have expressed a strong interest in renewing licenses on-line, developing on-line licensing capabilities should be a priority.

The development of on-line license renewal can provide for substantial improvements in customer satisfaction and the reduction of costs associated with licensing.

Customers also expressed an interest in receiving an e-mail notification prior to the expiration of their license that includes a list of the requirements for renewal.

Next Steps

Organizational. The team that develops the content of the licensed professionals cluster should include representatives from the Department of Consumer and Industry (CIS) and every other department that licenses or certifies individuals for the purpose of participating in a specific occupation. By working together these departments can utilize one database and one software

package for the development of on-line licensing. As the State's Web presence expands, it may be useful to break out into industry specific teams (i.e., real estate, medical, human services) and include a more broad set of representatives from other departments and perhaps licensees. These teams would facilitate the development of expanded content related to the industry being licensed.

Mechanics. After a team is gathered, an intensive interagency scan of available information should be conducted to inventory currently-available Internet resources. These resources are extensive but may or may not be user-friendly. The scan should therefore include an assessment of the degree to which each resource can be effectively used in its current state. Resources—and their component parts—could be classified by the industry or industries they apply to (including an "all licencees" category).

Responsibilities. The licensed professionals theme reveals a pressing need for the automation and reorganization of routine licensing. CIS is responsible for an overwhelming majority of individual licenses in addition to business licenses. CIS may be a good candidate to lead the team, working in collaboration with other departments who manage individual licenses and certifications.

Part Two: Research Summary

Introduction

Information on licensed professionals preferences for the e-Michigan portal was gleaned from four sources, including an analysis of e-mails to the Network Operating Center (the "webmaster" of http://www.state.mi.us), an analysis of the contact logs maintained by five state agencies (Secretary of State, Department of Natural Resources, Consumer and Industry Services, the Treasury Department, and the Michigan Department of Career Development), two real estate industry focus groups, and the general population survey.

Of these sources, the primary information on the Licensed Professionals thread was gained from the contact log analysis, focus groups, and the general population survey.

Content

Focus group members identified needs for transferring or renewing licenses, downloading real estate forms, getting property information from the Department of Environmental Quality and the Department of Treasury.

On-line FOIA requests would be valued if they decrease the wait time through regular mail.

Several real estate agents were interested in access to a State government phone directory searchable by department, topic, and name.

Focus group members want renewal fees included on the site.

Real estate focus group members requested that complaint history and any actions regarding the complaint should be included when someone looks up a licensed professional in the look-up list.

Focus group members also recommended that all terms included in complaint histories should be clearly defined for the public.

Focus group members expressed a strong preference for no banner advertising.

Functionality

Focus group members recommended links to county and local government.

Key aspects of functionality for real estate professionals include quick loading sites with information that is easy to access and comprehensive.

Members of the real estate professionals focus group expressed an interest in receiving an e-mail notification if a complaint is filed against them.

Real estate agents would like to use the Web to look up continuing education hours and receive e-mail notices about this information.

Priority for Development

The customer survey showed that one in five are employed in a licensable occupation (19.6 percent).

Of those who were licensed professionals, 73 percent renew their licenses every one to four years.

The most popular way of renewing licenses was by mail (68.7 percent), followed by renewing in person (24.3 percent).

Of those who were licensed professionals, 49.9 percent were very interested in using the Internet to renew their licenses. Interest in this transaction was ranked second only to camping reservations, with a mean score of 5.59 (on a scale from one to ten).

Part Three: Web Address Listing

e-Michigan Themes
Licensed Professionals (Real Estate)

Content	*Web Address*
Licensing	
CIS, division of commerce, licensing division, realtor's page	http://www.commerce.state.mi.us/bcs/re/home.htm
CIS enforcement division (maintains a listing of current license holders and the complaints against them)	http://www.commerce.state.mi.us/bcs/enf/home.htm
Administrative rules for licensed professions in MI	http://www.commerce.state.mi.us/bcs/occ/contents.htm
CIS license look-up page	http://www.cis.state.mi.us:8020/public/lic_reg$.startup
Applicable State of Michigan Pages	
Michigan Department of Environmental Quality (allows users to sign up for a list-serve)	http://www.deq.state.mi.us/
Michigan State Housing Development Authority (under the umbrella of CIS)	http://www.mshda.org/
CIS-Corporation and Land Development Bureau	http://www.cis.state.mi.us/corp/function.htm
Michigan Department of Education Reports (a variety of information about school performance in Michigan)	http://www.mde.state.mi.us/reports/
Michigan School Report (searchable by school district)	http://www.mde.state.mi.us/reports/msr/
MEDC Web guide to starting a small business	http://medc.michigan.org/glocation/starting_index.htm
MEDC page about paying taxes for self-employed	http://medc.michigan.org/glocation/starting_index.htm

e-Michigan Themes
Licensed Professionals (Real Estate)

Downloadable forms from the Department of Treasury	http://www.treas.state.mi.us/formspub/itind99.htm
Applicable Non-State of Michigan Government pages	
EPA region 5 page (includes MI)	http://www.epa.gov/region5/
U.S. Department of Housing and Urban Development	http://www.hud.gov/
HUD page with specific information for realtors	http://www.hud.gov/broker1.html
Michigan townships that can be accessed on-line	http://www.mta-townships.org/hotlktwp.htm
Michigan county descriptions with links to available Web sites	http://www.miaco.org/counties.html
Michigan cities that maintain Web pages	http://www.mml.org/search/relatedwebsites.htm
On-line applications for building permits in East Lansing	http://www.ci.east-lansing.mi.us/frame2.htm
Professional Associations	
All local realtor associations in Michigan	http://www.mirealtors.com/mire/mire_LocalAssocList.idc
Michigan Homebuilders' Association	http://www.mahb.com/
Career Development	
Information/registration for continuing education classes	http://www.naruniversity.com/
Applied Measurement Professionals (an organization that provides testing for real estate professionals)	http://www.applmeapro.com/restate.htm

E-Michigan Customer Research

Suggested Theme: Education

Part One: Executive Overview

Theme Name

There are several distinct subcategories of users who may have an interest in "Education," including students, parents, teachers, and administrators. The e-Michigan Customer Research focused primarily on the design and use of e-Michigan for students. Based on the research findings, it is recommended that this aspect of the education theme should be entitled "Student Learners and Researchers."

Content/Functionality
The content needs of "Student Learners and Researchers" (as described by teachers) include the following:

Visually appealing but not too much text on each page
Instructional material aligned with the Michigan Curriculum Framework.
A "last-updated" designation on each page
Virtual tours of state government as well as other museums and interesting sites
Career-related information including job statistics, pay levels, internship opportunities, summer camps, colleges, scholarships, etc.)
Higher Education options should include information about occupational training other than college
Live Web access to the Michigan legislature along with details on how a bill becomes a law.
Social studies-related databases in spreadsheet format that can be downloadable for math class use (e.g., demographics, labor market information, etc.)
Extend information available about the MEAP tests along with the Michigan Merit Award and other financial aid information, all available at one site
Developmentally appropriate information

The preferences of teachers regarding the functionality of e-Michigan include:

An "Ask Jeeves" type search engine
Quick-loading pages with a minimum of scrolling
No forms or personal data required for students to get information
A minimum number of clicks to get to actual content
Thumb-nail pictures to speed loading of page
E-mail information reminders for teachers regarding field trips and professional conferences.

Organization
Several themes regarding the organization of the "Student Learners and Researchers" theme emerged from the research. The most important of these are as follows:

Information organized by developmental level rather than grade-level, perhaps color coded, however some "non-teacher" focus group participants preferred a traditional, grade-level approach to organizing content.
Information storage systems designed like a library
A consistent approach to organizing content across themes

Additional Information Sources

Michigan Historical Library
External links to other instructional sites being developed with state instructional technology funds

Priorities for Development

Students, parents, teachers, and administrators all have information needs that can be addressed through the e-Michigan portal.

Priorities should be set after reviewing currently available Web-based information for appropriateness for specific audiences.

Next Steps
Organizational. The team that develops the content of the "Student Learners and Researchers" theme should include, minimally, representatives of the following departments of state government: Education, Career Development, Treasury, Secretary of State, Attorney General, Natural Resources, Environmental Quality, and Transportation. Representatives of the educational technology-specific professional associations may offer valuable assistance in designing this theme.

Mechanics. After a team is gathered, an intensive interagency scan of available information should be conducted to inventory currently-available Internet resources. These resources are extensive but may not be user-friendly or developmentally appropriate for selected age groups. The scan should therefore include an assessment of the degree to which each resource can be effectively used in its current state.

Responsibilities. The education theme cuts across many different levels and branches of government as well as the possibility of external links to a vast amount of information currently available on the Web. Cross-agency communication and coordination will be essential.

Part Two: Research Summary

Introduction

Information on educators preferences for the e-Michigan portal was gleaned from several sources, including an analysis of e-mail to the Network Operating Center (the "webmaster" of http://www.state.mi.us), focus groups composed of educators and the general public, interviews with representatives of the Michigan Association of Secondary School Principals and the Michigan Association for Computer-Related Technology Users in Learning (MACUL).

Of these sources, the primary information on the education theme was gained from the focus groups and stakeholder interviews.

Content

Teachers reported that they would be more likely to use the site for instructional purposes if the materials posted are aligned with the Michigan Curriculum Framework.

Interdisciplinary content resources would help students experience the interconnections among their class work. So, for example, a social studies unit could also include statistical databases that would require students to use their math skills.

An age-appropriate search engine would help students find information. An "Ask Jeeves" approach was mentioned by several teachers as an example of a format that seems to work well for students.

Virtual tours of important sites throughout the State would allow students who can not actually travel to those sites to benefit from their educational value. This would include museums and other important landmarks throughout the State.

Live Web broadcasts of the Michigan Legislature would be a good learning tool for social studies instruction, particularly if written materials on the legislative process are included.

Career-related information would include information about not only colleges and universities, but also occupational training institutions within Michigan.

Career-related information for elementary and middle school students might focus on career awareness and exploration.

Financial aid information might include Merit Awards requirements as well as descriptions of other federal and state financial aid options along with instructions on how to apply.

Functionality

Teachers and students must work quickly during the school day. Consequently pages that open quickly and print easily are highly valued.

Many students cannot customize because they share a computer at school.

Students should not be required to fill out any on-line forms to get information. Many schools do not allow students to submit personal contact information over the Internet.

Other Notable Points

Many schools do not yet have high speed models and others do not yet have Internet access.

Many students do not have their own e-mail address so a return email feature will not work for them.

Offer a contest that introduces students to the information that is available on the site, a "cyber-seek" scavenger hunt.

MACUL may be a valuable resource for design ideas and other insights regarding development of education themes.

Teachers report that students do not just want to be limited to a "Kids" section. If the Web portal was designed in a user-friendly manner it would allow them to access more comprehensive information.

Part Three: Web-Address Listing

e-Michigan Theme
Education

Content (Elementary Grades)	*Web Address*
Using the Internet	
- Save Use of the Web	www.safekids.com/kidsrules.htm
This is Michigan	
- **Michigan History**	
* Michigan in Brief	www.libofmich.lib.mi.us/publications/miinbrief.html
* Explore the History Museum	www.sos.state.mi.us/history/museum/explore/museums/hismus/hismus.html
* Virtual Tours of Michigan Historical Sites	http://michsite.state.mi.us/pictsrch.cfm
* Museums of the Midwest	www.sos.state.mi.us/history/museum/explore/muselink.html#mi
* State Symbols	www.mde.state.mi.us/michweek/mich.shtml
- Geography	TBD (developmentally appropriate)
- **Science and Technology**	TBD (developmentally appropriate)
- Health and the Environment	TBD (developmentally appropriate)
How Government Works	
Tour the State Capital	www.milegislativecouncil.org/lcfa/x1.htm
What are the branches of state government?	TBD (developmentally appropriate)
Learn about elections	www.sos.state.mi.us/kidspage/elections.html
How laws are made	www.sos.state.mi.us/kidspage/law/index.html
Why do we pay taxes?	www.tax.gov/kids/taxes.htm
See/Hear State Government in Action	www.mgtv.org/

e-Michigan Theme
Education

Guide to Federal Government	http://bensguide.gpo.gov/3-5/index.html
See/Hear Federal Government in Action	www.cspan.org/watch/
Send an E-Mail	
* Send an e-mail to Governor Engler	www.migov.state.mi.us/gov/ContactGovernor.shtm
* Send an email to your legislator	TBD - connect to searchable database feature
Visit the Library	
Michigan Electronic Library	http://mel.lib.mi.us
Library of Michigan	www.libofmich.lib.mi.us
What do you want to be?	
People who work in your community	TBD - career awareness - variety of career pathways
People who work in State Government	TBD - Governor, Lt. Governor, other elected officials, state agency employees- Example: www.dnr.state.mi.us/ProProfiles.asp?id=5&sec=inst&main=1

Other Categories not included in Prototype

Travel Safety

` Highway Safety Planning
www.ohsp.state.mi.us/kids/kids_korn.htm

` Highway and Street Sign Game
www.sos.state.mi.us/kidspage/games/signgame.html

` Safety City
www.nhtsa.dot.gov/kids/

Search Engine Outside of State Gov.
(Ask Jeeves for Kids)

e-Michigan Theme
Education

Content (High School)	*Web Address*
Using the Internet	
Take a free on-line course about the Internet	https://ims1.mivu.org/Scripts/koview.exe?get=module&ModuleID=371&DB=MVU
Tips for Surfing the Web	www.safeteens.com/safeteens.htm
This is Michigan	
History	
* Michigan in Brief	www.libofmich.lib.mi.us/publications/miinbrief.html
* Explore the History Museum	www.sos.state.mi.us/history/museum/explore/museums/hismus/hismus.html
* Virtual Tours of Michigan Historical Sites	http://michsite.state.mi.us/pictsrch.cfm
* Museums of the Midwest	www.sos.state.mi.us/history/museum/explore/muselink.html#mi
- Geography	TBD (developmentally appropriate)
- **Science and Technology**	TBD (developmentally appropriate)
- Health and the Environment	TBD (developmentally appropriate)
Research Databases	
* Michigan Labor Market Information Database	www.michlmi.org/
* Other Michigan Statistics and Databases	http://mel.org/michigan/MI-statistics.html
* U.S. Census Database	TBD
How Government Works	
* Tour the State Capital	www.milegislativecouncil.org/lcfa/x1.htm

e-Michigan Theme
Education

* What are the branches of state government?	http://documents.michiganlegislature.org/manual/
* State Constitution	www.sos.state.mi.us/history/archive/constitu/const1.html
* Learn about elections	TBD (developmentally appropriate)
* How a bill becomes a law	www.michiganlegislature.org/Howbill.asp
* How to get involved	http://www.michiganlegislature.org/CitizensGuide.PDF
See/Hear State Government in Action	www.mgtv.org/
Guide to Federal Government	http://bensguide.gpo.gov/9-12/index.html
See/Hear Federal Government in Action	www.cspan.org/watch/
Send an E-Mail	
* Send an e-mail to Governor Engler	www.migov.state.mi.us/gov/ContactGovernor.shtm
* Send an email to your legislator	TBD - connect to searchable database feature
Visit the Library	
Michigan Electronic Library	http://mel.lib.mi.us
Library of Michigan	www.libofmich.lib.mi.us
Career Planning	
* Create/Update your Education Development Plan	TBD (from MDCD)
* Do you have a career pathway?	TBD
* Find career education programs	TBD (from MDCD)
Pay for your Education	
* Michigan 5 W's of Financial Aid	pdf file

e-Michigan Theme
Education

* Michigan Merit Award Program	www.MeritAward.state.mi.us www.MeritAward.state.mi.us.faqs/faqmerit.htm https://treas-secure.state.mi.us/MeritAward/
* Financial Aid in Michigan	www.MI-StudentAid.org/home/index.html
* Financial Aid information from the U.S. Government	www.fafsa.ed.gov/
Student Employment	
Are you a Working Teen?	www.cdc.gov/niosh/adoldoc.html
Understanding Taxes	www.irs.ustreas.gov/prod/taxi/index.html
Simplified Tax and Wage Reporting System	www.tax.gov/kids
It's Payday: Money in your Pocket	www.irs.ustreas.gov/prod/taxi/learninglab/payday.index.html
Saving for the Future	TBD
Find an Internship, Find a Mentor	TBD
Driving in Michigan	
Behind the Wheel	www.sos.state.mi.us/kidspage/wheel.html
Graduated Licensing in Michigan	www.sos.state.mi.us/pamphlet/gradlicense.html
Road Skills Test Study Guide	www.sos.state.mi.us/bbos/3rdpt/rdsktsg.html
Road Test Examination Site Locator	www.sos.state.mi.us/bbos/3rdpt/index.html
Highway Safety Planning	www.ohsp.state.mi.us/teens/teens.htm
Michigan Traffic Crash Data	www.ohsp.state.mi.us/pages/ohsp_traf_crash.htm
Students Against Driving Drunk (SADD)	www.sadd.org
Express Lane Driving Directions	www.mapquest.com/
Search Engine Outside State Government	www.studyweb.com

E-Michigan Customer Research

Suggested Theme: Travel and Recreation

Part One: Executive Overview

Theme Name
The theme should be entitled: "Travel and Recreation"

Content/Functionality
The State of Michigan is perceived by many to be the appropriate agency to consolidate travel and tourism information for Michigan. The research revealed that the State should strive to produce a Web site that is comprehensive in providing information or links to travel-related services and information including:

Event and state-wide festival information.
Historical sites/landmarks in Michigan.
Lodging.
Activities/museums.
Road construction information.
Area restaurants.
Map generator with driving directions capabilities.
Environmental reports (e.g. water levels in Michigan lakes, fish/deer population reports, etc.).
On-line reservations.
On-line hunting/fishing/boating/driving licenses.
Detailed listings about specific activities allowed or available at various county/state/federal parks.
Direct link to Michigan's driving laws (participants felt this would be particularly useful for out-of-state visitors).
Campground facilities and whether boat access is provided at the campground.
Rules for hunting in Michigan.

The preferences of travelers and recreationists regarding the e-Michigan portal's functionality include:

Broad links across various sectors including all appropriate government levels (county, state, and federal parks), public, private, and non-profit sectors.

Ability to search across topics from a variety of angles. For example, one user might be an avid snowmobiler. He or she might want to search the site by activity (snowmobiling)

and then find lodging after deciding on a place to visit. Another visitor might have plans to visit a specific area and want to search for other activities or events that will occur while they are there.

Quick loading. Many users are not willing to wait for more than a few seconds for information.

Thumbnail pictures of recreation sites that can be expanded to facilitate fast loading yet allow for the greatest information possible.

Announcements about events, festivals, or sites of interest in Michigan; but no "banner advertising."

On-line transactions to make reservations and purchase tickets for events.

An option for users to sign up for e-mail reminders/newsletters about travel related information.

Travel information for Michigan citizens as well as out-of-state travelers. A link to Michigan travel information should be highly visible from the State's main Web portal.

Organization

Several themes regarding the organization of the travel and recreation cluster emerged from the research. The most important of these are as follows:

Much of the information and services that are of interest to travelers is already available on the Web. Furthermore, MEDC's Travel Michigan site already incorporates much of the functionality users desire.

With relatively little additional work, the State of Michigan, in partnership with MEDC, could provide the country's premier state travel Web site. For example, the travel Michigan site already allows users to search across categories for travel information. The site also contains a vast amount of information about the tourism and lodging information users are looking for.

There are a few key pieces missing from the MEDC site. For example, users expressed an interest in making on-line lodging reservations. They would like information regarding whether a lodging facility allows for on-line reservations.

Similarly, when users search for a state campground, there currently is not a link to the DNR Web site or to the Secretary of State for boating licences and Michigan's driving laws.

There might also be a potential partnership between the State and non-profit agencies in providing travel information. Area Chambers of Commerce collect event and destination information on a regular basis and would provide valuable resources. AAA Michigan maintains up-to-date road condition information (which they provide to MDOT) as well as a number of the other travel resources users desire.

The MEDC site also does not satisfy one of the functional requirements desired by users. The site loads very slowly and it was reported that this discourages many users.

Additional Information Sources

Users have a desire to access much "non-traditional" travel related information. One user noted that the State of Michigan is an appropriate entity to provide this information. These needs include weather updates, information about fish/deer and other populations, and water levels around the state.

There is also a desire to access a comprehensive list of conferences, festivals, and celebrations.

Priorities for Development

Travel-related information was noted to be highly desirable and important to State of Michigan customers.

Although there are additional services and information that could be developed for the Web, many of the resources needed by travelers in Michigan are already available on the Web.

The most efficient use of resources would direct efforts toward linking to current resources together through one central site for Michigan tourists.

Next Steps

Organizational. The travel and recreation theme group should minimally include representatives from the Department of Natural Resources, Secretary of State, Michigan Economic Development Corporation, and Department of Transportation. It is also appropriate to include outside agencies such as representatives from AAA Michigan or the Michigan Tourism Council.

Mechanics. After a team is gathered, an intensive interagency scan of available information should be conducted to inventory currently-available Internet resources. Some of the resources may be extensive but less than user friendly. The scan should therefore include an assessment of the degree to which each resource can be effectively used in its current state.

Responsibilities: The travel and recreation theme will necessitate cross-agency communication and coordination, but may also entail identification of Web sites external to state government. It

will be important to assign responsibility for identification of external information sites to a member or members of the theme development group.

Part Two: Research Summary

Introduction

Insights into the information needs and interests related to Travel and Recreation was obtained through several sources including stakeholder interviews with four high-level managers of the American Automobile Association of Michigan, an analysis of contact logs maintained by the Michigan Economic Development Corporation, two rounds of focus groups composed of Michigan citizens who travel in the State of Michigan for recreation at least once a year, and targeted questions in the e-Michigan citizen survey that probed for interest in receiving travel-related information and services from the State of Michigan.

The research findings of each of these sources were remarkably uniform with many of the findings overlapping.

Content

The research revealed that the State government agencies and the Michigan Economic Development Corporation (MEDC) have already made impressive strides in providing valuable information to Michigan's travelers and tourists via the Internet.

Much of the information, content, and functionality recommendations suggested by the research are already available via the Internet. With relative ease, the State could meet practically all of its customers needs by integrating the services already available, and focusing most efforts on making improvements in site functionality rather than developing additional content.

An analysis of contact log information collected by the MEDC revealed that requests for travel information constituted 91 percent of MEDC's customer contacts for 1999.

The MEDC's December 1999 monthly report provides additional information on the nature of MEDC travel inquiries. The top ten inquiries by feature interest were: Cultural Tourism, Statewide Interest, Attractions, Lodging Facilities, Events, Packages, Campgrounds, Shopping, Agricultural Tourism, and Nature Tourism.

Managers interviewed at AAA Michigan noted that the association receives numerous calls from travelers asking for the locations of historic bridges, lighthouses, museums, and historic roadways.

They suggested that the site provide content information about a number of Michigan's unique vacation opportunities as well as some of the little known attractions which might help spark public interests. It was suggested that this feature be included in the Travel MI home page and updated or changed periodically to continually stimulate public interest with new destination ideas for tourists.

It was further suggested that Web users should be able to use the Travel and Recreation site in a variety of ways. Information could be arranged by theme, but also geographic area. This way, tourists who wanted to visit ten lighthouses could begin by finding out where all of the Michigan lighthouses were located.

Another idea mentioned was a feature that would allow Web users to search for special events and other attractions in the geographic area they were planning to visit.

Many people want to find out the driving laws in the State they plan to visit. AAA suggested placing Michigan's driving laws on the Secretary of State's Web site and placing a link to it on the Travel MI Web site. AAA members are always calling about driving laws in Michigan and in other states.

The stakeholders expressed a strong preference that site design should focus on services or activities rather than State agencies or departments. They further recommended that the Web address be easy to remember.

During the interviews it was noted that from the Association's perspective, the public is not ready to completely replace the AAA office with the Web. However, 35-36 percent of AAA's customers do get at least part of their services on the Web. They also note that since their Web site is new, this percentage is likely to increase.

AAA representatives felt that allowing banner advertising on the State's Web site is not appropriate. In their opinion, the State's Web site should be clean and pure with no tacky banner advertisements.

Specific requests for information suggested by focus group members included the following:

Provide as much information as possible that can be accessed from one site.

Include access to a variety of information from sources that extend beyond state agencies, such as:
    - # Event and state-wide festival information.
    - # Historical sites/landmarks.
    - # Lodging.
    - # Activities/museums.
    - # Road construction information.
    - # Restaurants.
    - # Map generator with driving directions capabilities.
    - # Environmental reports (e.g. water levels in Michigan lakes, fish/deer population reports, etc.).
    - # On-line reservation system.
    - # On-line hunting/fishing/boating/driving licenses.
    - # Detailed listings about specific activities allowed at various county/state/federal parks.

- # Direct link to Michigan's driving laws (participants felt this would be particularly useful for out-of-state visitors).
- # Campground facilities and whether boat access is provided for the campground.
- # Rules for hunting and the State forests.

Participants want the Web site to load quickly. They are not willing to wait more than a few seconds (in most cases) for a site to load.

When possible, provide pictures of destinations in a thumbnail file that can be accessed for further information.

The Web site should not have banner advertising.

The Web site should link broadly across various sectors to include all appropriate government levels and branches, public, private, and non-profit sectors.

The Web address for the site should be easy to remember.

Site contents should be organized by activity, location, season, and by user (family activities, kids, seniors, school groups, etc.).

Participants responded positively to the idea of getting e-mail reminders from the State for various topics. Specifically, participants noted drivers' licence tabs, boating/hunting licenses, and festivals and celebrations around the State.

The following are some of the findings pertaining to travel/recreation from the customer research survey:

Fewer than one in five have camped in a Michigan State Park in the last two years (18.5 percent).

Over two thirds (69.3 percent) reported that they are not likely to camp in a Michigan State Park in the future.

The mean number of nights camped in a Michigan State Park was eleven.

Over half of the sample reported that they would be very interested in making camping reservations through the Internet (51.9 percent).

Of the four transactions focused on in the survey (taxes, drivers' license tabs, license renewal, and camping reservations), camping reservations was ranked the highest in terms of interest in using the Internet.

With respect to the types of information people would like to see on their start-up page (stickiness), 49.9 percent were very interested in seeing travel/map information on their

start-up page. Travel/map information was second only to weather information with respect to interest level.

With respect to the types of information and services the State could provide, 50.6 percent were very interested in historical/travel information. Historical/travel information was ranked the highest in interest when compared to other types of information.

Part Three: Web Address Listing

e-Michigan Lifestyle Clusters
Travel and Recreation

Information Service	*Web Address*
A variety of travel information searchable by location, season, and topic area.	www.michigan.org
Up-to-date information on weather.	www.weather.com
Access to a number of services including travel, automotive, and membership information.	www.aaamich.com
AAA Michigan events guide.	www.aaamich.com/travel/tips_services/events.asp
Traffic and construction updates, bypassing AAA Michigan's home page and many of the "for fee" services AAA offers.	www.aaamich.com/travel/traffic/
Link to AAA's fuel report.	http://www.aaamich.com/membership/news_info/fuelreport.asp
Detroit Metro airport information on the airlines serving the area as well as terminal maps and other information.	http://www.metroairport.com/
Grand Rapids-Gerald R. Ford Airport	http://www.grr.org/
Traverse City Airport	http://tvcairport.com/
Kalamazoo Airport	http://www.kalcounty.com/airport.htm
Muskegon Airport	http://www.muskegonairport.com/
Midland, Saginaw, Bay Airports	http://www.mbsairport.org/